Contents for February, 1950 **Vol. XII. No. 2**

Memo from the Editor

We read somewhere that it would take the income taxes of 14 million families earning between five and eight thousand dollars a year to pay for the present agricultural price support program.

That is not good.

In an article written especially for the American Milk Review Secretary Charles F. Brannan discusses an alternative to present price supports. We would suggest that there are a great many worse things that you could do than to take ten minutes to read what a man who ought to know has to say about the famous Brannan Plan.

N.M.

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Few proposals have stirred up more controversy than has the so-called Brannan Plan. In this article, Abundant Production Wisely Used, written in response to our request, Secretary of Agriculture Charles F. Brannan invites you to explore the Brannan Plan with its author.

ABUNDANT

CHARLES F. BRANNAN

PRODUCTION WISELY USED!

By **CHARLES F. BRANNAN**
Secretary of Agriculture

URBAN FAMILIES of the United States, it is estimated, used almost one-fourth more milk and its equivalent in 1948 than in 1942. Even so, national milk production and consumption lagged far behind the requirements for an adequate diet. Moreover, per capita consumption of fluid milk and cream declined in 1949 and, some predict, may decrease a little more in 1950.

These facts are of concern to dairy farmers, the entire dairy industry, and to all consumers of the Nation. They point up an agricultural problem which, far from being confined to dairying, is characteristic today of agriculture in general. In the first half of 1949, the per capita amount of money spent for food declined—for the first time since 1938—even though per capita income, after personal taxes, continued to rise.

As agricultural prices and income swing downward, farmers are worried. Agricultural net income is already down about one-fifth from the 1947 high. It may decline another 15 per cent in 1950. While dairy farmers are now getting almost one-fifth less for their milk at wholesale than they were three years ago, they are still paying near-record prices for many of the things they have to buy. The purchasing power of farm dairy products, already considerably below the average for the past ten years, is still going down.

The Administration, believing that this trend is not in the public interest, has recommended certain improvements in our price support programs to more effectively resist it. First, we have proposed that price support should be geared to a purchasing power objective. We have suggested as the objective the average purchasing power of cash receipts from farm marketings during a recent 10-year period. The precise recommendation is that the base period should be the first 10 years out of the past 12. Thus, for 1951 the base period would be 1939-48 inclusive; for 1952 it would be 1940-49. Such an income standard would have the advantage of being always in line with recent actual conditions. If this objective were met in 1950 farmers would have about the same purchasing power as in 1942. Present indications are that the actual purchasing power of net farm income in 1950 mav run nearly 10 per cent below 1942.

I know that there are some people who do not agree that price support should be based on recent average purchasing power. But when we ask at what level it is in the national interest to stabilize farm income, we get, at best, evasive answers.

XUM

I believe that our people want, and need, farm abundance, particularly of milk, meat, and other protective foods. They want and need agricultural abundance not only for good diets, but also because our farms supply raw materials that are vital to industries producing about one-third of all our manufactured products.

The principal objective of this Administration in its farm proposals is the same objective that has dominated agricultural policy in this country for more than a decade and a half. That objective may be summed up in four words: "Abundant production, wisely used." We are seeking to adapt abundance of food and fiber to the needs, and to the maintenance, of a prosperous economy.

If American farmers produce abundantly, surely they deserve a fair return. Farm purchasing power in 1950, equal to that of 1942, does not seem to me to be excessive particularly since farm people are still getting far less dollar income per capita than nonfarm people receive. Actually, a total farm purchasing power less than that of 1942 might cause a slackening of business, a growth of unemployment, waste of agricultural resources, and the weakening of the rural community.

Under the Administration proposal, not only would dairy products, along with other farm commodities, be assured a more satisfactory level of support, but perishables would be supported by a method which would enable larger quantities to be consumed.

We proposed to add to present methods of supporting such nonstorable crops as milk, meat, and eggs the method of direct payments to producers. Instead of relying solely upon the purchasing of milk and taking it off the market to maintain a fair return to producers, the price of milk would be allowed to find a supply-and-demand level. If this level should carry the price below the point of support the difference would be made up by a payment directly to the producer.

Under this method consumers would get a direct return or benefit—lower market prices—from their tax money used for price support. Under the purchase method, in contrast, the consumer first pays the taxes with which the Government buys the surplus and removes it from the market; and second, the consumer pays an artificially high price for the product that remains on the market.

We have now on hand in expensive storage about 90.6 million pounds of butter which were accumulated by purchase operations at 90 percent of parity. We have 25.5 million pounds of cheese and around 175 million pounds of dried milk solids. While these surpluses may not be currently serious, our accumulations are likely to become serious if we are forced to continue to operate under an inadequate, inefficient price support program.

In view of the obvious need and capacity of the American people to consume dairy products, it surely does not serve the best interests of either producers or consumers if we are forced, because of an inadequate price support program, to take great quantities of butter and other dairy products out of the market.

But this, practically speaking, is what we are forced to do when we support dairy products by means of purchases alone. We cannot throw the surplus on the market; this would defeat the whole purpose of the support program. We can only store the commodity or give it away. Support by the additional means of direct payments to producers, on the other hand, would give consumers access to larger supplies at attractive prices.

Now it may be that there are some valid objections to the production payment method of support. If so, I should be only too willing to have them pointed out. But the objections that have so far been offered are quickly seen to be based on misunderstanding or, in some cases, on misrepresentation.

It is objected that if the producer is guaranteed a minimum price, he will not be interested in increasing his efficiency of production and marketing. While this might be true, in some instances, under the *purchase* method of support, it is completely false under the production payment method; for the individual farmer would receive the difference between the *average* market price and the support level for his area—not between *his* market price and the support level. He would, therefore, have every incentive to increase his net return by producing higher quality milk, by better bargaining, or by reducing costs.

It is objected that production payments on milk would be too costly. One "estimate" put the cost at several billion dollars a year. Again, the objection is based on false assumptions. It assumes that prices of milk to producers would be supported at the all-time record level of 1948; that the U. S. average retail price of milk would be held at precisely 15 cents a quart; that a subsidy would be paid on every quart

MILK SHAPES THE WORLD

"Milk is a symbol of the peace and prosperity toward which the free peoples of the world are striving," Secretary of Agriculture Charles F. Brannan told the annual meeting of the Dairy Industries Society, International, recently in Washington, D. C. "For the first time in history the world is within sight of the potential productive ability to produce enough milk for all."

"The requirement for milk in 1960 is 300 million tons," Mr. Brannan said. "But world production in 1935-39 was only 150 million tons, or half the amount required for an adequate supply for the estimated population in 1960. Milk production this year is estimated at only about 5 percent above prewar. While this does not equal the increase in world population since 1939, it is a good sign that recovery from the devastation of the war is under way."

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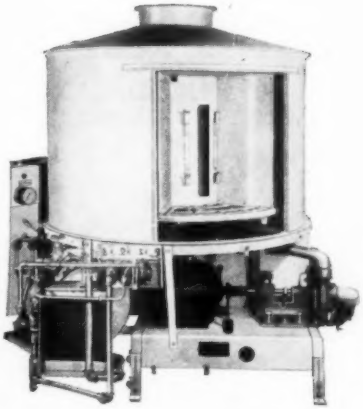

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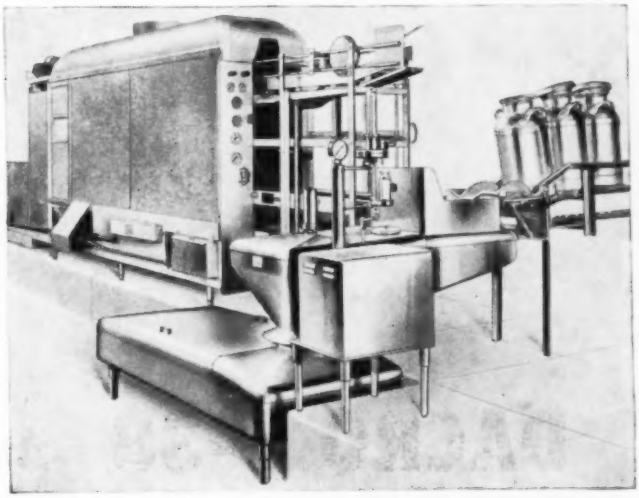

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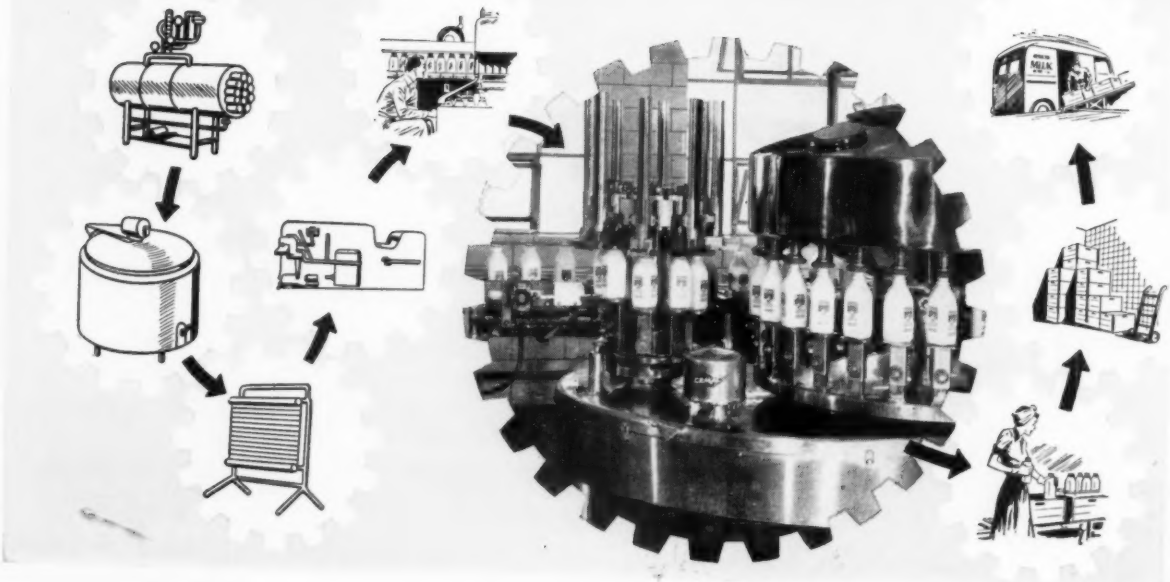

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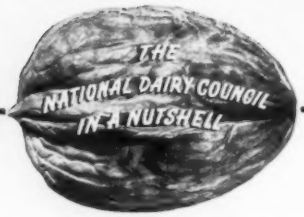

National Dairy Council devotes its efforts to research and education. NDC promotes use of milk, butter, cheese and ice cream by providing facts on their food value to professional, educational and consumer leaders throughout the nation. These facts are impressed upon consumers through printed materials, movie films, exhibits and displays, publicity, and group meetings. NDC is supported by membership dues from processors and handlers, from machinery and supply manufacturers and jobbers, and by producer funds through ADA. NDC serves every branch of the Dairy Industry.

of fluid milk and cream consumed; and that consumption would be 25 per cent larger than in 1948.

Apparently this horrendous cost estimate is supposed to answer my statement in testimony before the Congress last April that: "If it is necessary to get milk down to the area of 15 cents a quart at retail in order to have maximum consumption, and use production payments to assure farmers of fair returns, I think both farmers and consumers will want to do it."

My statement was obviously concerned with a possible long-time objective. We don't presently have enough cows to increase production 25 per cent. It will take a lot of nutritional education and continued high employment, as well as price inducement, to get this kind of milk consumption. Nor is anyone justified in assuming that the price of milk would have to be subsidized in every city, for every container size and for every consumer. Early in the fall of 1949 milk was selling at 14 to 17 cents a quart in a number of cities.

Let me point out also that if we now had a 25 per cent increase in consumption, handlers and processors of milk and dairy products would benefit not only by the increased volume of dollar business, but also by substantial reductions in operating costs per unit, some of which could be passed on in the form of lower prices to consumers.

In fact, the overall saving to consumers in reduced prices, from the use of production payments as compared with a purchase program, would more than cover the total cost of these payments.

Before leaving this subject, let me quote two statements from sources which can hardly be accused of favoring uneconomic use of the taxpayer's dollar.

The first is from the agricultural committee of the Hoover Commission—the Commission on Reorganization of the Executive Branch of the Government:

"The [present] methods for supporting the price of perishable commodities . . . put a double burden on the consumer," the Hoover committee said. "He is not only required to pay a high price for the product which he consumes but he also pays, through taxes, the cost of carrying on the price support program . . . The committee, therefore, recommends that consideration be given to a plan which would permit a free market, for perishable products, with the difference in price made up to the producer in a supplemental payment."

The second statement is from the recommendations of the Dairy Industry Committee four years ago. This committee recommended as a method of price support "compensatory payments to producers." It described this method as follows:

"The prices of dairy products, left free to find their level on the basis of supply and demand, coupled with a direct government payment to the farmer in addition to his return under a free market price, if necessary, to maintain the support.

"This form of support," said the Committee, "would tend to promote maximum consumption consistent with demand and supply conditions . . . The Dairy Industry Committee recommends this method to Government and has committed itself to work for its adoption."

This Committee, incidentally, represented the American Butter Institute, National Cheese Institute, American Dry Milk Institute, Evaporated Milk Association, International Association of Ice Cream Manufacturers, International Association of Milk Dealers, and the Dairy Industries Supply Association.

Although American farms in 1948 and 1949 produced 32 per cent more food and fiber than they did ten years earlier, milk production was only 8 per cent higher in 1949 than in 1938-39. This increase in milk output was made in spite of an actual reduction in the number of milk cows on farms.

If the American people in the future are to have an adequate amount of milk and dairy products in their diets, progress in increasing production must be not only continued but accelerated. This will require adequate returns to producers, while at the same time permitting consumers to satisfy their needs at prices they can afford.

We do not have that kind of a situation now. Nor do we have authority under present price support

(Please Turn to Page 65)

Cancer's danger signals

1. Any sore that does not heal
2. A lump or thickening in the breast or elsewhere
3. Unusual bleeding or discharge
4. Any change in a wart or mole
5. Persistent indigestion or difficulty in swallowing
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When the Judge Gave a Government Lawyer the Old Heave-ho There Were

FIREWORKS IN CHICAGO

By **JOHN F. SEMBOWER**

Exclusive feature

Sparks have begun to fly in the Government's anti-trust prosecution against eight Chicago milk companies and 12 company officials. As the trial stage nears in one of the most dramatic of the long series of such cases throughout the country, there have been the following salient developments:

1. After warning that the Government's attitude in refusing to let the milk company attorneys see certain papers could be a "long, long step toward a police state," the Federal judge before whom the case will be tried held a special assistant to the Attorney General in contempt of court.

2. The trial of the Bowman and Borden company indictments under the Robinson-Patman Act has been set tentatively for trial commencing on May 31, while setting of the trial date on the other anti-trust actions was deferred until the contempt citation against the special prosecutor is ruled upon by the U. S. Court of Appeals to which the Government took the matter.

3. The Dean Milk company of Chicago is pushing its $15,000,000 civil damage suit against seven rival companies under indictment and a stockholder of one of those companies who also is an official of the National Tea company.

Government Lawyer Jailed

It has been a long time since the U.S. District Court in Chicago has seen more excitement. Early in January Judge John P. Barnes held Willis L. Hotchkiss, special assistant to the Attorney General of the United States, in contempt for failure to make disclosures to the defending milk companies of books, documents, and records which might be used against them in the suit. Even attorneys for the milk companies were surprised with the dynamic outcome of their more or less routine subpoenas of records, and had to ask for an extra day in which to prepare an order committing the Federal prosecutor to jail for his failure to carry out the Court's order.

Judge Barnes indicated in no uncertain terms that he plans to see that the milk companies and their officers have their full day in court and an ample opportunity to meet the charges brought against them. The new Federal rules of procedure require that each side turn over to the opposition any papers that may surprise it at the trial, so that a thoroughly fair proceeding will be assured.

Hotchkiss, apparently acting on direct instructions from Attorney General J. Howard McGrath in Washington, refused to turn over certain of the papers, however, claiming that contributions made to the Government's case "by confidential and voluntary informants" would be exposed.

The Federal prosecutor argued that in a criminal proceeding this would be against public policy and would impede the Government in the milk case and in other criminal proceedings later on.

Judge Barnes answered: When the Government stands in this court, or any other court of the land,

John Sembower is a newspaperman turned lawyer. He writes, "As a former full time Associated Press man and a newspaperman on the Indianapolis Star, I have printer's ink in my veins and cannot give it up." While in newspaper work Mr. Sembower studied law and is now a member of the bar.

This is the second of Mr. Sembower's stories on the legal aspect of the milk business in Chicago.

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and says it has the right to refuse to obey a court order which directs it to turn over certain papers to the defendants in a criminal case, it is taking a long, long step toward a police state."

Shaking his finger at Hotchkiss, the Judge continued: "This is exactly what you are doing. And if you are sustained in the higher courts of this land, you must remember that you and your associates are taking this long, long step toward a police state. You will be doing this without any voluntary cooperation from me. You are saying in effect that the papers which you have in your possession may be material to your case, but not to the defendants' case. Some other court will have to say I am wrong."

Let's Have A Look, Uncle

Demanding that the Government put its cards on the table and be fair with the milk companies, Judge Barnes added: "I don't think the Government is different from any other litigant. The new rules of procedure are excellent rules; they aim to take the hocus-pocus from proceedings and to a great extent they succeed. Through generations, lawyers have kept their cards close to their chests. The new rules changed this. You have to put your cards on the table."

Judge Barnes is the chief judge of the U.S. District Court in northern Illinois, and is one of the senior members of the entire Federal judiciary. Noted for his unswerving determination to stand by what he believes is just, Judge Barnes figured in a similar spectacular incident when Justice Tom Clark of the Supreme Court was Attorney General and on his orders the U.S. District Attorney in Chicago refused to turn over papers to attorneys for the other side in a *habeas corpus* action. The prosecutor was held in contempt then also, but the outcome of the case never was decided because the case later was postponed.

In the latest blowup, the Federal special prosecutor was taken into custody by the U. S. Marshal while appeal was taken immediately to the U.S. Court of Appeals, and pending its ruling, he was released on his personal bond. When the very next morning, the prosecutor again was before Judge Barnes to have a date set for the Robinson-Patman Act case against the Bowman and Borden companies, the judge stated that he would not set the bigger case for trial until the contempt citation was ruled upon by the Court of Appeals, but established May 31 as the date for the second case.

The heat already generated in the contest indicates to observers that the milk case will be as hard-fought and perhaps nearly as closely watched nationally as the Government's actions against the A. & P. food chain and E. I. du Pont de Nemours & Co., which have attracted such wide attention.

In the DuPont case, Judge Barnes also has indicated that the Government may expect him to take a stiff attitude. By contrast with his ruling in the milk case, he cautioned Government attorneys in one of their early maneuvers against DuPont that he would not tolerate "a fishing expedition" being launched against DuPont's records. In that instance, the Government was seeking to pry into truckloads of the corporation's records, which would have to come from Wilmington, Del.

FROZEN MILK CONCENTRATE PROPOSED

A frozen milk concentrate was described at the National Frozen Food Convention held in Chicago early this month. The process involved is still in the laboratory stage but frozen food people described it as "the most exciting project on the horizon right now".

John Fox, president of Minute Maid Corporation said that the process differed from that used now in condensing milk. It employs vaporation at low temperatures in ahigh vacuum.

"It is possible that way," Mr. Fox said, "to shrink a pint and a half of milk to six ounces without losing flavor or nutritious qualities." Full volume is restored by adding water.

The defense maneuver which brought about the dramatic exchange between the judge and prosecutor indicated the care with which the defendant milk companies and their officials are building their defenses against the three-pronged attack of the Anti-Trust Division. The detailed design of that defense naturally has not been fully disclosed, except that the defendants are stoutly denying all the bases for the prosecution.

Eight Companies Involved

The gist of the indictments returned by the grand jury against the milk companies in the Chicago area was outlined in *The American Milk Review*, May 1948. Companies indicted were Bowman, American Processing and Sales, Beloit, Borden, Capital, Hunding, Meadowmoor, and Western United. If they lose, all are liable to fines and injunctions.

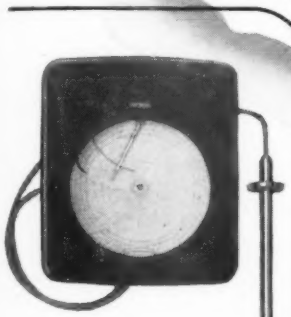
The officers who as individual defendants would be liable to fines and imprisonment if found guilty include: William R. Boruszak, vice-president of Western United; Hyman I. Freed, board chairman of Capital; H. H. Inglehart, sales manager of Borden's Chicago division; Walter F. Ketell, sales manager of Bowman's Chicago division; O. N. Koenig, vice-president, Chicago division of Borden; Francis H. Kullman, vice-president of Borden; S. D. McGuire, president of of Beloit; D. Cameron, vice-president, Bowman; O. O. Smaha, vice-president of Borden; J. A. Bowman, treasurer of Bowman, and D. C. Cameron Peck, Jr., and E. J. Larson, both of Bowman.

There are three indictments. The first charges "conspiracy" on the part of the companies to allocate sales among themselves to various Federal, state, and county institutions in the Chicago area. The second

(Please Turn to Page 74)

SERVICE

"ON THE DOT"



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These instruments feature such basically-sound design and construction that they seldom need attention. They have a vapor pressure system (developed by Foxboro), the fastest and simplest of any filled-type thermometer. Foxboro Pasteurizing Thermometers are nationally recognized as outstanding for accuracy, dependability, convenience and long-life . . . yet you pay no more than for other well-known makes.

Foxboro Pasteurizing Thermometers are available for any type or make of pasteurizer. Nationally distributed by The Creamery Package Mfg. Co. and others. A complete line of Recorders and Mercury-in-glass thermometers is available to meet your specific requirements. Send for Bulletin 389.

The Foxboro Company,
266 Neponset Avenue,
Foxboro, Mass., U.S.A.

**Branch Factories and Repair Shops*

FOXBORO
REG. U. S. PAT. OFF.

INSTRUMENTS THAT IMPROVE Product Uniformity

WILLIAM J. RIDER

Portrait of a Dairyman

ON THE outskirts of suburban New York, sixty miles from Times Square is Connecticut's famed city of Danbury. Nested comfortably among ledge flecked hills, this city of hats tends its brood of headgear factories. Fifty-eight years ago Charles Rider hitched up his overalls another notch and opened up a dairy business in the city. More than half a century later the business, now in the hands of the second and third generations, rolls merrily along.

William J. Rider, son of the founder, went into business with his father twenty-nine years ago. Under his guidance the company has continued the steady solid growth that has been characteristic of the company from the beginning. From the original one route business of the nineties, the firm has grown to a tidy daily volume of eight thousand quarts plus a healthy ice cream business. Twenty-four trucks make up the company's fleet and the names of fifty-four employees are on the help roster. Five years ago the third generation of Riders entered the business when Bill Rider junior took his place beside his dad.

Motion, physically and mentally, has been a dominant feature of Rider's Dairy. The original business was known as the City Creamery and was located on Maple Avenue in Danbury. From Maple Avenue the business was moved to Cleveland Street, then to North Street, and finally, in 1909 to its present location on New Street. A new plant, now called the Old Plant, was built in 1922 and three years later the business was incorporated under the name Rider Dairy Company. But the business just wouldn't stand still. After the late war had run its course Mr. Rider found it necessary to build another addition.

In a market where government regulation in the form of a State Milk Control Board determines resale prices as well as producer prices Mr. Rider has managed to keep his business healthy and dynamic. "Milk is in politics," he says, "and I don't know how we're going to get it out. It isn't a good thing. It isn't sound. But it's a fact we've got to face. As long as the condition continues we've got to live with it."

The Rider story is another of those magnificent dairy industry sagas. Father, son, and grandson have taken the raw materials of opportunity, hard work, imagination, astuteness and fashioned them into a livelihood for themselves and their community.

Equip YOUR Plant with TODAY'S GREATEST NEW IDEA in BETTER CAN WASHING...

NEW DAMROW DUB-L-LINE CAN WASHER

DUB-L-LINE TYPE SD — 10 to 16 cans and covers per minute.

- OFFERS GREATER CAPACITY IN LESS FLOOR SPACE
- ASSURES MORE EFFECTIVE AND MORE ECONOMICAL WASHING

With its distinctly NEW "Double-Row" principle of can washing, the new Damrow "DUB-L-LINE" is the year's most exciting new development in better can washing. Your cans and covers go into a single loading and draining stage, then separate into *two rows* where they pass through *thirteen* separate stages and treatments, including COLD AIR DRYING. Offers many important advantages — takes less floor space — washes more thoroughly — operates at half the ordinary 12-can speed for longer machine wear and more economical operation. It's adjustable to capacities from 10 to 16 cans and covers per minute.

Improve YOUR can washing — with the new DUB-L-LINE. Write for complete details today.

DAMROW BROTHERS' COMPANY

COMPLETE EQUIPMENT FOR THE DAIRY INDUSTRY

204 Western Avenue, FOND DU LAC, WISCONSIN

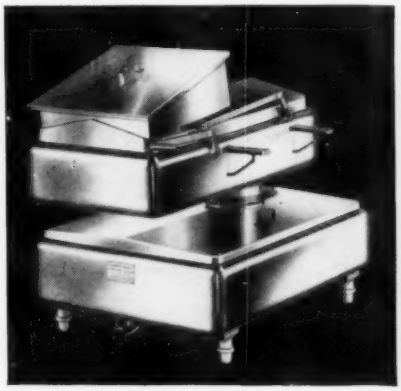
SAVE MILK MAN-HOURS AND MONEY

..here's help for cost-

MODERN EQUIPMENT LIKE THIS PAYS ITS WAY FROM SAVINGS!

There are more ways than you might think to save milk, man-hours and money. From the receiving rooms on through every process, every function, there are possibilities that modern "pays-it-own-way" Cherry-Burrell equipment can eliminate expensive bottlenecks — to accomplish great savings for you.

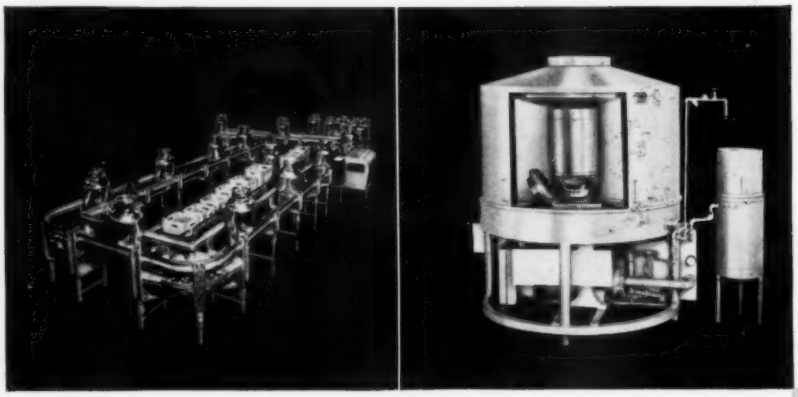
The problems of economical production in the face of a 40-hour week are many — receiving, processing and washing up in an 8-hour day are vitally important. Ask your Cherry-Burrell representative how others in your category are solving these problems — with the right Cherry-Burrell equipment, properly selected and used.



in the receiving room

There is the right size of Cherry-Burrell weigh can and receiving vat to match your needs. Compak is one of them — a modern complete unit of all welded stainless steel — entirely enclosed. Fully rounded corners and smooth, sanitary finish make it easy to clean. For use with platform or suspension scales.

Cherry-Burrell also builds and distributes a complete line of Receiving Room equipment — separators, pumps, coolers, can rinsers, conveyors, scales, cream savers, etc. Your Receiving Room problems get undivided attention when you turn them over to Cherry-Burrell.



for moving cases, cans or cartons...

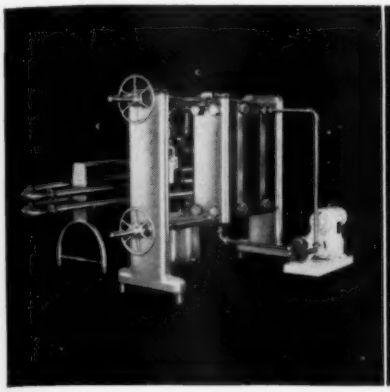
There is nothing like a Hi-Flex Conveyor for simplifying the problem and cutting the cost of moving cases, cans and cartons through the plant. Ruggedly constructed of all galvanized parts, easily adaptable standardized Hi-Flex units are interchangeable — make simple work of removing and adding straight sections, curves, take-ups and drives. Patented "Hook-n-Eye" chain, special track and hardened sprockets mean PERFORMANCE.

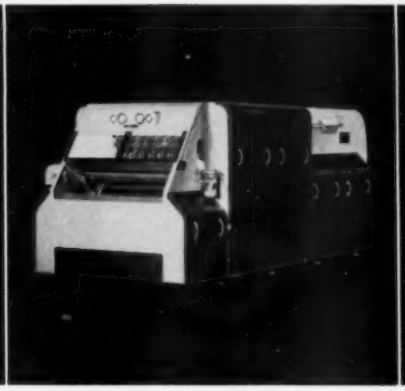
in can washing

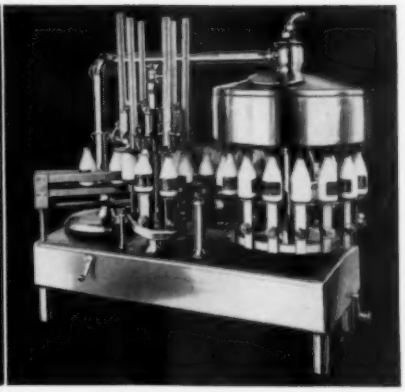
Newest rotary can washer on the market, the MotoRo cleans 180 cans and covers in an hour. Each can is given 6 intensive treatments: pre-rinse, wash, post-rinse, sterile rinse, steam sterilization and air drying. Saves steam, water and time. Cans get really clean — at minimum cost!

Designed primarily for the small and medium-sized dairy, the MotoRo is also widely used by larger plants for on-the-spot efficient cleansing of "house" cans. Fast, easy to use and economical, the MotoRo makes can washing a routine simple task — and assures cleaner cans and better product quality.

weary dairymen!







at the pasteurizer

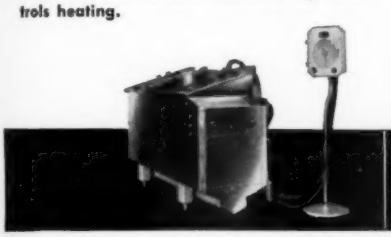
The whole field of pasteurizing — continuous or batch method — is covered by Cherry-Burrell. Superplate, the all stainless plate-type pasteurizer, is the ultimate in modern, efficient, closely controlled, sanitary pasteurizing. Also, round, rectangular or square batch-type pasteurizers, such as the CC Spray shown below. Exclusive, patented Sentinel Control automatically controls heating.

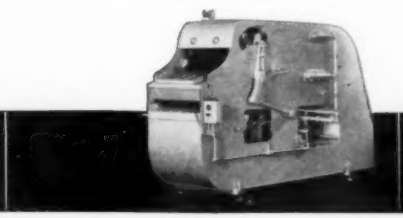
at the bottle washer

All Cherry-Burrell bottle washers feature the cost-reducing, high-temperature soak with low caustic concentration. From the 110 bottles-a-minute Model E to the 16-bottles-a-minute TJ, you will enjoy big savings in washing powder and reduced bottle breakage. Cherry-Burrell washers offer clean, sterile bottles at lowest cost, with greatest convenience.

at the filler

The all stainless Gra-Vac Model K Filler is the last word in sanitary design. Diaphragm-type filling valves and Gra-Vac principle mean uniform waste-free filling. Sizes from 48 to 120 quarts per minute. Another Cherry-Burrell Filler is the new "Milwaukee 72" for the medium size plant. Available as gravity or vacuum type filler with features found only in fillers for selling twice its low price!





CHERRY-BURRELL SERVICE HELPS YOU "SEE" YOUR OPPORTUNITIES

Your Cherry-Burrell representative and his branch engineering department offer unique, far-reaching help. With your plant's floor plan laid out to scale, they can, with the use of attractive scale models of equipment, show you graphically the plant arrangement and equipment that are tailor-made to your specific requirements. They help you get a broader understanding of your needs and bottlenecks—help you to establish a program for filling them. Make an appointment with your Cherry-Burrell representative to discuss this service —you'll be glad you did.

CHERRY-BURRELL CORPORATION
General Sales and Executive Office:
427 W. Randolph Street, Chicago 6, Ill.
Milk and Food Plant Equipment and Supplies
FACTORIES, WAREHOUSES, BRANCHES, OFFICES OR DISTRIBUTORS AT YOUR SERVICE IN 56 CITIES
trendmaker in a great industry

WHY NOT START NOW?

It's not too late — or too soon — to embark on a program of thorough investigation with your Cherry-Burrell representative to see how modern equipment can help you save milk, man-hours and money. Use this handy coupon to get your program under way.

Cherry-Burrell Corporation
Dept. 102, 427 West Randolph Street
Chicago 6, Illinois

Send bulletins on the following:

- ☐ Compak Weigh Can
- ☐ Superplate
- ☐ Batch Pasteurizers
- ☐ Bottle Washers
- ☐ Model K Filler
- ☐ Milwaukee 72 Filler
- ☐ Hi-Flex Conveyor
- ☐ MotoRo Can Washer

☐ Have a representative call.

Name .....

Firm Name .....

Address .....

City ..... State .....

XUM

SALES ACTION FOR BUTTER!

ADA smashes out in a booming BUTTER SALES DRIVE across the nation! Through 18 related food manufacturers . . . through Super Market Merchandising magazine . . . through the nation's food pages . . . every home in America will be covered.

Through widespread retail food merchandising, BUTTER will be in the sales spotlight. This is your ADA backing BUTTER in the most dominant BUTTER campaign of all time. It's the *sales* way . . . your ADA way!

KEY TO GOOD EATING . . .
BUTTER
You Just Can't Beat It
BETTER WITH BUTTER
Every Pound Made From Four Pints of Cream
AMERICAN DAIRY ASSOCIATION
"Voice of the Dairy Farmer"

This full page, full color American Dairy Association ad, "BUTTER—Key to Good Eating," appears in February 18 issue, Saturday Evening Post, plus February 28 issue, Look Magazine, plus March 5 issue, American Weekly—reaching BUTTER customers by the millions! That's ADA sales action for your money!

FIRST IN FOODS

AMERICAN DAIRY ASSOCIATION

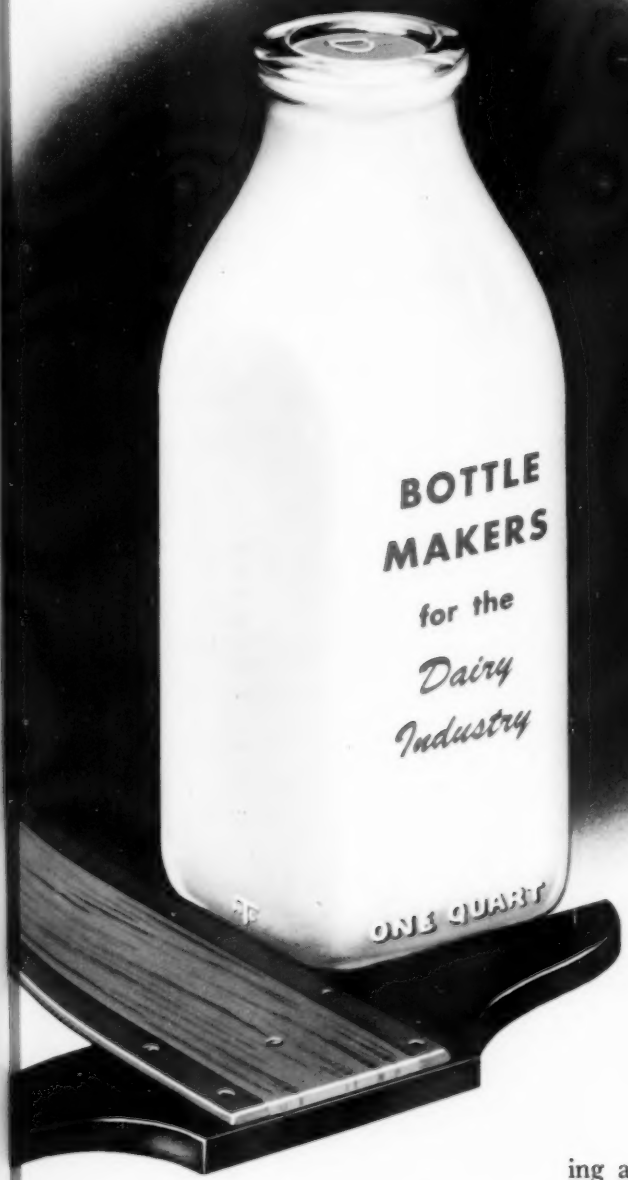
20 N. Wacker Drive Bldg., Chicago 6, Illinois

"VOICE OF THE DAIRY FARMER"

WHICH?

Increased Trippage

or a Cheaper Bottle



Does the dairy industry need a lower-priced milk bottle or a milk bottle that will increase trippage, and thereby reduce distribution costs?

As we see it, a cheaper bottle means only less initial outlay, *but does not reduce the basic costs of fluid milk distribution.* The economic facts are simple: if the milk container costs 1c and makes one trip, the net cost for distribution is 1c; if the container costs 5c and makes 50 trips, the net cost is only 1/10 of 1c. This is a mighty important consideration for milk plant operators faced with rising costs of operation and consumer resistance to price increases.

Thatcher Glass has consistently produced high quality, extra-trippage glass milk bottles. Whatever style, shape, or finish you prefer, Thatcher-made milk bottles are better designed, more uniform, and last for extra round trips. Give your dairy the opportunity for new operating and distribution economies with Thatcher glass milk bottles. Your dairy equipment jobber will supply you, or order direct.

MAKERS O
THE ORIGI
MILK BOTT

THATCHER GLASS MANUFACTURING COMPANY, INC. Elmira, N. Y.

EDITORIALLY SPEAKING . .

Up Butter and At 'EM

IF WHAT WE READ in the papers is correct the American Housewife is practically free as air now that she no longer has to spend weary hours putting the yellow into oleo. What the little woman will do with all this spare time bestowed upon her by act of congress is a question of importance second only to what the veterans will do with their insurance money. We understand, also, that the manufacturers of oleo can now proceed to gobble up the rest of the bread spread market and leisurely count their tainted millions. Finally, if the arguments of the butter brethren are sound we can expect to see the eclipse of the butter industry and with it the fall of the rest of the dairy business. This, it is said, will bring about a depletion of the soil and a consequent deterioration of our civilization. Gad, what a prospect.

Well, before we cut our throats or drink hemlock or drive our trucks over the nearest cliff let's see just how badly off we are. First bright spot is the fact that the dairy industry will no longer be faced with about fifty million dollars worth of bad publicity each year. Second bright spot is the removal of a crutch which has tended to cause our selling muscles to atrophy. One kind of support fashioned in Washington is no longer available. We will have to look to ourselves. And finally, there is the brightest spot of all, the matter of preference. Is there any doubt in anybody's mind on that score? We have yet to see the man, woman, or child who would take oleo over butter. We have seen people who purchased oleo because it was cheaper than butter but never, never have we seen the person who bought the fat of the bean because he liked it.

Fifty thousand years ago the great ice sheets came grinding out of the north. To a warm pleasant environment, where pre-historic man lived comfortably with little effort, the ice brought cold weather and the problem of survival. Some of those old boys tossed in the sponge, stiffened out and froze to death as it were. But some of them elected to fight. They found caves. They learned how to make clothes out of fur. They discovered fire. They domesticated animals. They began the long hard climb that made them the masters of the world.

This oleo thing was bound to come. It is not catastrophic. It is not the end. On the contrary we believe that it is the beginning of a magnificent new chapter in the story of butter. The crutch has been taken away. The butter support crutch is still there but maybe we can get rid of that one too. We've got to stand on our own feet and slug it out with the best the soy bean can sprout. That means selling. That means hard work. But we venture a guess that there will be more butter sold than we ever thought possible once we put our minds to it.

●

Twenty-five Years of Quality

A LETTER CAME IN the other day from Mr. Marcel Drolet of the Laiterie Laval, Quebec, Canada. Mr. Drolet advises us that his firm is celebrating its silver jubilee, their 25th anniversary in case you're a little rusty on reckoning up such things. Mr. Drolet told us a few facts about Laiterie Laval, what it is, what it has accomplished in a quarter of a century in the dairy business. It's quite a yarn.

The dairy was started in 1910 by a chap named Emond, Albert Emond. Fifteen years later the business was acquired by two brothers, Jules and Paul Cote. The brothers formed a partnership and things began to happen. Twenty-five years ago there were 4 horse drawn wagons and 6 motor trucks delivering the firm's products. Today there are 65 retail and wholesale milk routes plus an ice cream and specialty business that requires some 35 trucks. Employees grew from 30 in 1925 to 225 in 1949.

There must be a reason for growth such as this. Undoubtedly the most outstanding factor was the energy and skill supplied by the brothers Cote. A business doesn't just grow like Topsy. Somebody has to supply the spark. But unless there is something to sell that meets a constantly more exacting demand the effort will experience that slow death reserved for those who do not have it. High quality standards was the mast to which the Cote brothers nailed their flag. Through the employment of men able to implement this policy, through the establishment of a top notch modern laboratory, through unflagging attention to the basic principles of quality control Laiterie Laval prospered.

There is a lesson here for all of us. Quality control is a prominent factor in dairy industry thinking these days. Some folks look upon the time and money required by a good quality control program as a necessity to which one must conform if the health departments are to be kept away from the door. Health departments are involved, it is true. But to our way of thinking, and what the Quebec story demonstrates, is that quality control, the production of a package of milk that is good in any league is the only basis upon which a prosperous enduring milk business can be built.

We congratulate the folks up there on the banks of the St. Lawrence. Twenty-five years of producing quality milk is no mean achievement. It also has its rewards.

●

Their Full Day in Court

MANY TIMES harassed dairy plant operators, have felt that their position was the reality of the old saw, "between the devil and the deep blue sea". With price control on the one hand, price fixing suits on the other, and a barrage of newspaper editorials castigating the industry on general principles in the middle, not to mention customers, bacteria, labor, and a dozen other factors, there was good reason for the feeling. It comes as something of a pleasant surprise, therefore, to read the words of Judge Barnes, the jurist presiding over the Chicago milk trials. The milk companies will have their full day in court, he declared, and his actions give substance to his words.

●

Trouble, Trouble, Boil and Bubble

THE COUNCIL FIRES are burning far into the night. The war drums are booming and the well honed hatchets are being touched up again. The newspapers and the trust busting bully boys are on the war path again. The dairy people up in Providence, Rhode Island, have just emerged from the wringer created for them by the Providence Journal. The Detroit Free Press has just concluded a series of articles on the milk business in the automobile city that were not altogether flattering. In Milwaukee there was a brief flurry when, on top of an ill considered price war, the Milwaukee papers carried stories that belabored the quality of milk sold in the city. Chicago is the scene of a real slam

bang battle between the milk people and Uncle Sugar over the issue of price fixing. Down in St. Louis the government took one on the chin when an appellate court found the evidence insufficient to sustain a price fixing charge. In Washington the long battle that has been going on for some twenty years flared up again when a higher court reversed the decision of a lower court and sustained a government appeal that would bring Washington dealers back into court again on the usual charge. In Jamestown New York dealers have sold out to the city which is going into the milk business on a municipal basis.

What do we do about it?

There are lots of things that can be done. First let's be sure our hands are clean. Are we doing all that we can to improve the quality of our product? Are we working with our producers and our customers on a fair and honest basis? Are we competing on the level? Are we working out our labor problems in an enlightened progressive manner? If we are convinced that we are doing a good job in all of these phases of our business then let's not sit back and wait for the lightning to strike. Let's do some striking ourselves.

The A & P has shown what can be done. We have one of the greatest public relations set-ups ever devised in the form of our route salesmen. If they can be made to see that their income and their security depend on how good a public relations job they do the antipathy that some unions and some individuals hold for this phase of their work ought to be overcome. Give these men some training in selling the dairy business itself. Equip them with the proper literature and the proper techniques of presenting the magnificent story of our business. Many dairies are already doing something along this line, Diamond Milk Company of Columbus, Ohio and St. Lawrence Dairy of Reading, Penn. come to mind. But there is a great deal more to be done.

We happen to live in Connecticut next door to New York. We pay up to a nickel a quart more for milk than the folks do in the metropolitan area. Yet as far as we know not one single step has been taken by dealers in our area to explain this situation. Some bright day the newspaper boys will knuckle on to that story and beat off the industry's ears with it. Other markets in the country have similar problems and are not doing much of anything about them.

Let's get off the bench and start pitching. Let's not wait for the press and the government lawyers to start throwing fast ones right past us.

Presenting the Ladies

ALYCE SAUNDERS
President
Rosebud Creamery Co.
Detroit, Michigan

IF YOU HAPPEN to be in Detroit some evening when the Detroit Fiddlers Band is giving a concert be sure to take a good look at the first violinist. If you do this you will receive a threefold reward. You will see an extremely charming and competent lady. You will see a superb instrument that was fashioned a hundred and twenty years ago in Turin by the famous violin maker, Johannes Pressenda. And finally you will see the only first violinist in the United States who is also the chief executive of a hard hitting dairy firm. The lady in question is Alyce Saunders, violinist, sailor, and a real operator in the dairy business.

Mrs. Saunders is the president of the Rosebud Creamery, which, among other things, enjoys the distinction of being Detroit's oldest existing creamery.

The business was founded in 1884 by Clements Philipski, Sr. Like so many other of the gallant stories that dot the history of the dairy industry it was one man, a vision, an affinity for work, and a place to go. Sixty-six years later Mr. Philipski's daughter presides over the fulfillment of the promise that her father saw before the turn of the century.

Old Detroit hands may possibly remember the Valentine Philipski farm near what is now Perrien Park. Grandfather Philipski's cows grazed in the vicinity of Northeastern High School and young Clements helped with the chores and peddled milk in the neighborhood. From such a solid, earthy beginning has the modern, Rosebud business evolved.

Alyce Saunders took over the leadership of the Rosebud Creamery in 1947. She had been elected treasurer of the company in 1940 when her father, after fifty-six years of building, handed the reins over to the next generation. Reviewing the last decade Mrs. Saunders writes, "With the able assistance of a competent staff, many of whom have been with the creamery more than twenty years, the company has enjoyed its most fruitful period. The plant has been completely modernized and re-designed. The truck fleet is one of the best in the city both from a mechanical and advertising point of view. We have been able to turn out consistently high quality products that have found increasing acceptance with the public. The latest figures show an increase of approximately forty per cent in our business.".

Rosebud uses 670 cans of milk each day. A hundred and twenty people are on the roster of employees. These figures create a picture that is a far cry from the one man operation of 1884 but they do not tell the whole story. You don't stand still and stay in the milk business. You either go ahead or you go out. Rosebud has gone ahead. It was one of the first companies in the Detroit area to pasteurize. The first bottle of milk put up in a square glass container

(Please Turn to Page 59)

Wage And Hour Law Changes Will Affect Dairy Industry

Noted Labor Authority Sees Sharper Definitions As Boon To Operators

By **PAUL POTTER**

PAUL POTTER

Paul Potter is a specialist in a field of specialists. He has combined the vast and intricate business of labor relations with the equally vast and intricate business of milk. As head of Paul Potter and Associates he directs the activities of an organization trained and equipped to meet the industrial relations problems of the dairy industry.

Mr. Potter served his apprenticeship in labor relations as an agricultural editor, as a trade association secretary, and as a member of the War Labor Board. He is a graduate of Iowa State College and former publicity director for the National Dairy Council.

This is the first of a series of four articles by Mr. Potter written exclusively for the *American Milk Review*. The second will appear in the April issue.

Exclusive feature

AMR

The new minimum wage standard of seventy-five cents an hour will probably have the least impact on the dairy industry of provisions in the re-written Fair Labor Standards Act. Other features of the law such as the new specifications for businesses subject to the law, elimination of "overtime on overtime," and the first processing of buttermilk are some of the important changes that have definite implications for the dairy industry.

The new Fair Labor Standards law, commonly known as the Wage and Hour law, went into effect January 25, 1950. At the same time new regulations issued by the Administrator became effective.

To summarize quickly some of the changes dairy employers will note, we list eight of the more important:

1. A new definition is set out for the types of business operations that are subject to the law. A dairy may be subject to the interstate features of a Federal Milk Marketing Order, and some of its operations be subject to the new Wage and Hour law, yet the dairy not be subject to the Taft-Hartley act, since all three types of government regulation have different yardsticks.

2. While the new law requires a minimum of 75 cents an hour for a forty hour workweek, if the operations performed are "covered" by the Wage and Hour law, there is still a provision by which the employer may pay less to those learning a job requiring some skill or experience, under certain conditions.

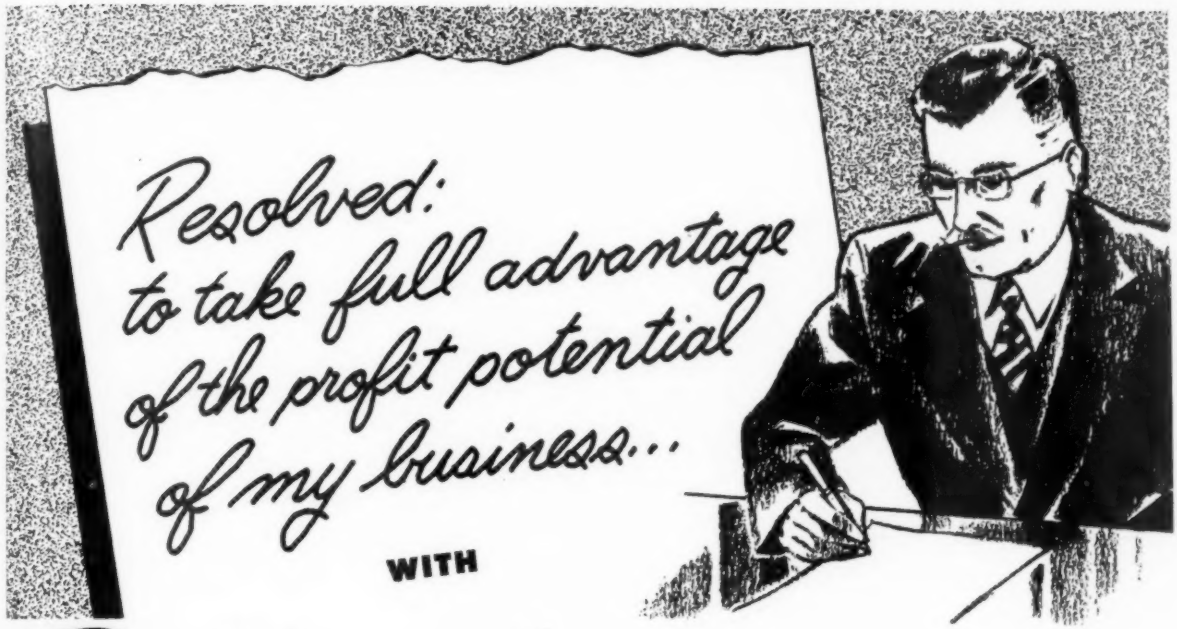
3. The Wage and Hour Administrator can now sue an employer for back wages, provided the employee so authorizes him, and waives his double liability action, attorney's fees, and certain other conditions.

4. The new definition of "regular rate of pay" now clearly precludes an employee or union seeking to collect "overtime on overtime," or more properly stated, no overtime can be collected for hours worked when paid as premium time, even if beyond the eight hour day or forty hour week. Bonuses and other special types of compensation are also set forth in relation to overtime obligations, thus clearing up in law what has caused a lot of legal and administrative headaches in other industries, and in some instances in dairy payrolls.

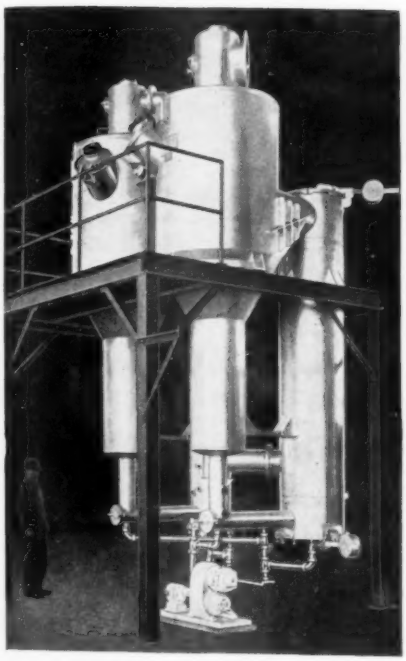
5. A specific exemption has been inserted for "outside buyers" of milk and cream and poultry products in their raw state from producers.

6. The first processing of buttermilk has been labelled as an exempted occupation.

7. New regulations have been drawn up under which exemptions may be made for so-called "white-collar" employees, engaged in executive, administrative, professional, outside salesmen or local retailing occupations. Under these



Buflovak EVAPORATORS



Buflovak Triple Effect Evaporator

We certainly want to wish you a prosperous New Year. But, all the good wishes in the world aren't enough to make it prosperous. You and you alone can assure that prosperity by taking advantage of every profit-building opportunity . . . By producing top quality at lowest possible cost . . . By adding flexibility that enables you to meet every conceivable market demand . . . BY INSTALLING A BUFLOVAK EVAPORATOR. A Buflovak Evaporator producers concentrated milks that possess the rich, natural flavor that only instantaneous evaporation can give you. And Buflovak achieves positive quality control economically. The Double Effect Evaporator affords a 50% saving in steam and cooling water. The Triple Effect Evaporator equipped with a Vapor Milk Heater realizes a 67% saving in steam and 80% conservation in cooling water in comparison to single effect operation. All Buflovak Evaporators recover more than 99.9% of solids. Design simplicity and stainless steel construction insure perfectly sterile operating conditions and convenient cleaning.

. . and THE *Buflovak* ROLLER DRYER

Companion equipment of the Buflovak Evaporator is the Buflovak Roller Dryer for direct conversion from liquid to dry skimmilk, whole milk and sweet and sour buttermilk.

Write For Bulletins Nos. 343 and 344.

BUFLOVAK EQUIPMENT DIVISION
OF BLAW-KNOX COMPANY

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295 Madison Ave., New York 17
2217 Olive St., St. Louis 3
1636 Monadnock Bldg., Chicago 4
1706 Broadway, Oakland 12, Calif.

regulations, it is estimated that at least one-third of the dairy plants of the nation must recheck the classifications of employees in such activities, or risk overtime being accumulated due to their irregular or unsupervised hours of work.

8. The new act defines the so-called "Belo-type" contract, by which certain employees who might be "covered" under the law, but whose hours are irregular or relatively unsupervised, yet not the "white-collar" type of job, may enter into a bona fide contract with an employer and both be certain of their standing under the Wage and Hour administration.

Operations Subject to Act

Our best information is that about one-third of the dairy plants of the nation had one or more types of operation which could be held as "covered" under the old Wage and Hour law. Conversely, more than two-thirds of the employees in the industry were exempt, due to the intrastate nature of the dairy operation, or because of first processing, area of production, outside salesman, seasonal employment, or "white collar" exemptions.

Over the years, the changes in production and distribution of dairy products have been the source of many a managerial headache. Which employee's duties were clearly exempt? If some employees were exempt and others were not what should be done about separate payrolls and separate operations? Should the operator avoid getting into hot water by taking no changes and paying even exempt employees time and a half after forty hours? These problems have been an important factor in the rapid rise of wage rates in the dairy industry, an even greater increase in most cases, than the rise in cost of living, or in average factory payroll rates.

Now, dairies whose principal operations are intrastate can adjust themselves so that isolated cases don't come along to plague them, after a year's payroll records have been tucked away, seemingly complete and final. The one unfavorable part of the new law, in this respect, however, is that it now defines the "covered" jobs differently than did the old law. Now court decisions must be awaited to establish just what operations in producing goods for interstate commerce are "in any closely related process or occupation *directly essential* to the production thereof, in any state." The old law used the term "*necessary*".

As an example of operations to watch for "covered" employees, the purchase of butter from another state, for distribution on a milk dealer's routes, might cause the person who takes the butter from the truck into the icebox of the plant, the person who places the order for the butter, or the cashier who sends the check for the shipment, to be construed as "directly essential" to this interstate transaction. Some dairies avoid this possibility by either buying the butter from within the state, or by purchasing it in bulk, and printing or packaging the butter after it has "come to rest" in the plant. There is also a method of contracting for the making, printing and packaging of the butter in another state that avoids the coverage liability, which attorneys can set up for a milk dealer.

New Exemption for Retailers

The new definition of retail and service trade exemptions will be found helpful to many milk and ice cream firms who may have been concerned under the old law about their liability for overtime of a very few employees whose work might be construed by a Wage and Hour fieldman as "necessary" to interstate commerce. The new law exempts all employees of a retail or service trade establishment, either inside or outside workers, if more than 50% of its annual dollar volume of sales are within the same state. Such an establishment is defined as one "75% of whose annual dollar volume of sales . . . is not for resale" and is "recognized as retail sales or services in the particular industry" with three tests to be met for this exemption. An analysis of this exemption, and the statements about it made in Congress, indicates it will apply to some types of milk and ice cream plants or outlets.

From an administrative viewpoint, the new law has already changed many policies of enforcement, or caused old ones to be reviewed, in the Washington and regional Wage and Hour offices. Conferences have been held, and are still in progress, at the national and local levels in this enforcement division of the Labor Department, to set up new regulations and instructions for fieldmen. It is apparent that some months will be required to firmly establish changes in such procedures, so far as the dairy employers are concerned. Meanwhile, with only enough fieldmen to canvas an industry such as this intermittently, it may be years before test cases can become fixed in law. The safest thing for a doubtful employer to do, is to check either an attorney or someone versed in personnel matters, on doubtful operations under the law; and if necessary to secure a written opinion from the Wage and Hour Administrator on which to rely, in answer to a written inquiry addressed by the doubtful employer, or trade association, to the Administrator in Washington.

NEW TRIAL IN ST. LOUIS

On May 28, 1949 a federal court convicted the Peverly Dairy Company and the St. Louis Dairy Company, both of St Louis, on charges of price fixing. On December 14 a United States Court of Appeals set aside the findings of the lower court in a 2-1 decision.

The two dairies, which handle 63 per cent of the fluid milk in the St. Louis area, were fined $5,000 each by U. S. District Judge Rubey M. Hulen following their conviction by a jury on May 28, 1949.

Six individual defendants—officers of the two dairies—were acquitted by the jury.

U. S. District Attorney Drake Watson said he believes the Department of Justice will take the case to the U. S. Supreme Court. The prosecution was handled principally by the Anti-Trust Division of the Department of Justice.

Presiding Judge Archibald K. Gardner wtote the main opinion of the Court of Appeals. Judge Walter G. Riddick concurred in the reversal in a separate opinion. Judge Seth Thomas dissented.

Judge Gardner said all the evidence against the dairies was circumstantial and that it was insufficient to justify conviction.

"Mere uniformity of prices in the sale of a standardized commodity such as milk is not in itself evidence of a violation of the Sherman Anti-trust Act," he wrote.

"It is observed that the price changes in question were not simultaneous. Neither were the changes uniformly initiated by the same appellant (dairy) it is conceded there was no direct proof of any agreement between the appellants for the fixing of prices.

"In fact, the evidence is undisputed that every price change was made, not as a result of any understanding or agreement, but because of economic factors, and the same economic factors prompting a change by one of the appellants were equally applicable to the other."

To milkmen, accustomed to being beaten over the head with the scales of justice, the opinions of the court make strange and refreshing reading. This decision, coupled with the incarceration of a government lawyer in Chicago for contempt of court in a price fixing suit, give a decided change of atmosphere.

This large capacity Henszey 3 Effect Evaporator runs 10 to 15 hours per day making low heat and high heat powder. It has been installed in a space only 11' x 14' without building reconstruction. All parts sanitary and accessible for cleaning and inspection.

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2. Automatic milk feed valves.
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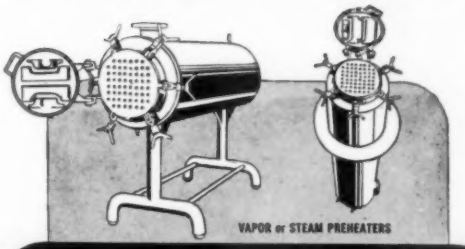

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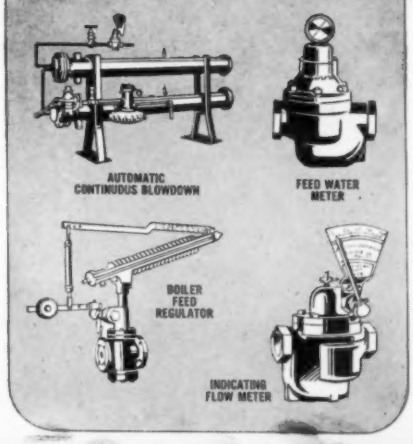


Railroad station serves as market place for milk. If the milk is not sold at the station it is carried on down the line until it finds a buyer. Not very sanitary, perhaps, but looks as though the young fry find it exciting.

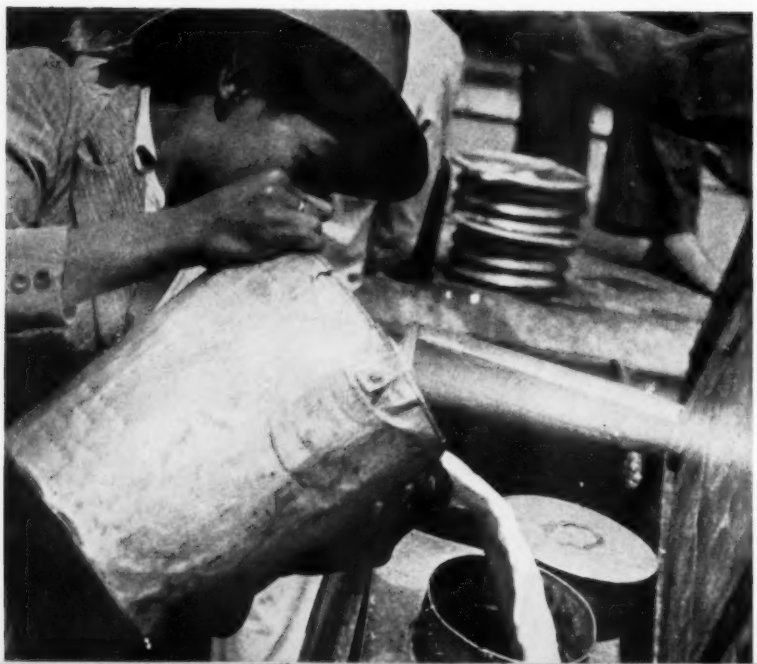
A metal container in a crate on the back of a mule is the hinterland version of the milk transport. Although the beast in this particular case happens to be a horse, mules are generally favored. Note the spigot at bottom of crate.

BRAZIL—

Exclusive feature

The population of Brazil is roughly equivalent to the total number of people living in New York and California. Yet her huge land area places her as the second largest nation in the world. Super imposed on the United States, Brazil would reach east and west from New York to San Francisco, north and south from the Gulf of Mexico to the Arctic Circle.

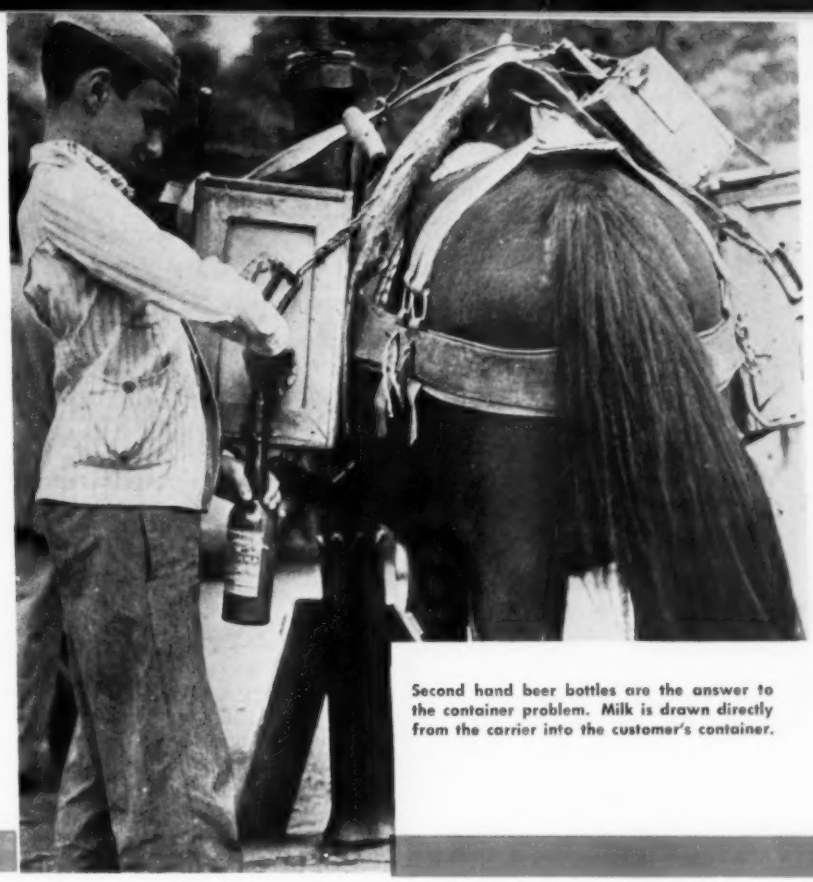
Brazil is mostly lowland jungle. In the eastern areas are the highlands famous the world over as a source of coffee, sugar, and tobacco. In this highland area the country's dairy industry has reached its highest stage of development. It is on the east coast close to this high-



A farmer loads his mule-back milk transport preparatory to a trip to the railroad station. Whether he will have milk or butter when he gets there is an open question.

XUM

Hey Mac, where d'you want this can to go? Boys in a variety of sizes are an integral part of the distribution system.



Second hand beer bottles are the answer to the container problem. Milk is drawn directly from the carrier into the customer's container.

Milk, Mules, and Boys

land section that the fabulous cities of Rio De Janeiro and Sao Paulo have grown into show places of the world. But perhaps the most marvelous of all the superb marvels of that mighty land is the sleek, fat Amazon coursing indolently from the slopes of the Andes across four thousand miles of jungle. At the exact point where the equator intersects the eastern coast of South America, the Amazon dumps its silted waters into the Atlantic Ocean.

The influence of old Portugal lies heavily over Brazil. More than four centuries past, the empires of Portugal and Spain were engaged in bitter rivalry for possession of the new world. Both had substantial claims based on right of discovery and conquest. To settle the matter that threatened war both sides agreed to arbitration. The settlement, proposed by the Pope who was the arbitrator, provided for an imaginary line to be drawn 370 leagues west of the Cape Verde Island. Lands west of this line belonged to Spain. Lands east of the line were to be under the jurisdiction of the Portuguese crown. Spain got the gold of Mexico and Peru. Portugal got one of the greatest agricultural regions in the world.

Brazil is a land of extreme contrasts. Her principal cities, Rio De Janeiro and Sao Paulo, are as modern and beautiful as any in the world while her interior regions are backward to the point of being primitive.

The distribution of milk is one example of this contrast in ways

(Please turn to Page 73)

Special bottle fillers are required for the beer bottles turned milk bottles. This model, although not recommended on grounds of efficiency or sanitation, has considerable appeal.

If you want to Sell Milk
YOU'VE GOT TO HAVE QUALITY

By **JOHN J. SHEURING**

Exclusive feature AMR

Today, more than at any time in the history of the dairy industry, the importance of marketing quality milk products is recognized by most progressive dairymen. Of greater importance, the consumer is more quality conscious than ever before and watches closely how his food dollar is spent. This trend will continue as long as food prices and living costs increase, and may be expected to become more pronounced if salaries start going downward.

Although it is sometimes difficult and unpleasant to admit facts, especially if they are not encouraging, the dairy industry has recently found itself the object of considerable adverse publicity. The recent legislative trends have not been publicized by major newspapers in the most complimentary terms for the butter manufacturers. Regardless of the fairness or unfairness of the editorials, a portion of the dairy industry finds itself in a defensive position as far as the buying public is concerned.

There's That Surplus

There are other factors that the dairymen must recognize, one of the most important of which is surplus milk products. The industry recognizes the fact that the government has bought tremendous stocks of butter, dried milk and cheese and is withholding them from the consuming public in order to support the price of those foods. Without trying to discuss the philosophy of such a policy, the fact still remains that thousands of people are not able to purchase those products at a price they can afford to pay. This condition is especially true in some sections of the country.

From those policies certain conditions have arisen which place the dairy industry in a position which it should recognize and try to correct. Getting down to specific points:

(1) The dividends and net earnings in the dairy industry, as well as numerous other industries, are as high or higher now than ever before. However, there are thousands of people who cannot afford the price of butter and that market is being eagerly grabbed by the margarine interests.

(2) Are the butter manufacturers marketing the best butter that they know how to produce? Do they really believe that the type of butter produced in centralized creameries represents their best endeavors? Have they lost a great share of their market due to selling a low-quality product? Those are questions the butter industry must answer for the buying public.

(3) What is going to happen to the dairy industry if millions of pounds of surplus dairy products are at some time in the near future offered to the consumers? This question needs answering not only from the viewpoint of dollars and cents involved but from the possible loss of market that may result when the purchaser buys low quality dairy foods.

(4) Is the dairy industry selling uniform products?

(5) Are they doing an efficient job of merchandising their wares?

Dairymen have a completely nutritious food to sell to a consuming public that has already been educated by doctors, teachers and public health officials as to the need and desirability of milk products in the diet. Yet, there are millions of people in this country and in the world who are not receiving adequate diets although warehouses are full of surplus dairy products. These facts must be recognized and something done about them other than fill the newspapers and magazines with considerable "ballyhoo" that few intelligent people believe.

Quality Butter Needed

All of the adverse criticism received by the butter industry is unjustified. However, the butter industry has manufactured too much butter from cream of a questionable condition and not enough from clean, fresh, sweet cream and as a result the quality of butter has suffered. It is time now for the butter industry, if they want to keep their markets, to manufacture a superior product that can be sold at a competitive price. They should soon realize that the housewife is not going to pay 70c per pound for low quality butter in preference to good margarine at 40c or less per pound. The butter industry has a definite challenge that must be met by producing a superior product and selling it to the consumer. The butter market can never be recaptured with a low quality product.

The cheese industry has grown tremendously in the past thirty years, al-

The University of Georgia acquired John Sheuring in 1948. Up to that time he had been dividing his time between the United States Air Force, University of Illinois, and Bordens. Graduation from Illinois in 1940 was followed by two years as as instructor in Dairy Manufacturing at that institution. The axis caught up with him just as he was getting into high gear and he spent four years in uniform. When the curtain went down on the final act of that great tragedy he went back to Illinois where he completed his graduate studies. The University of Georgia called two years ago and at present he is the acting head of the Dairy Department there.

IMPORTANT... *to every bulk shipper of dairy products*

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though, the per capita consumption of cheese in the country is still low. Great strides have been made in processing and merchandising cheese. However, too many people do not buy cheese because no effort has been made to acquaint them with the process by which cheese is manufactured. To many people, cheese represents a product made from low quality milk.

At a recent meeting of farmers and business men, the main subject of discussion was the erection of a cheese plant. It was the author's duty to explain the art of cheesemaking and impress upon them the importance of using clean, fresh milk in the production of cheese. After the meeting, he was amazed at the reaction because most of them felt that poor quality milk was universally used in cheesemaking. One individual stated the situation, "I can now eat some cheese; before, I had always considered it unfit to eat".

Any person who has participated as a judge or contestant in an ice cream clinic realizes that this division of the dairy industry has a tremendous job ahead of it. Ice cream is or should be a most refreshing food, attractively merchandised, and uniform in quality. However, if twenty samples of vanilla ice cream are collected from twenty different manufacturers, it is doubtful if any two of them will approach similarity in flavor, color, body and texture and overrun. The samples will vary from one or two that are excellent to some that are such a mixture of poor dairy products and flavors that they should not even be classified as ice cream.

The fluid milk division has likewise progressed rapidly, however, we are still not supplying sufficient milk to the consumer. Excellent strides have been made in production, processing and marketing of milk but too frequently the quality slips and one bottle of low quality milk delivered to a housewife can create more resentment than can be corrected by delivering ten bottles of good milk.

Opportunity Right Now

Perhaps all of these statements seem pessimistic in nature, which is not the true concept at all. The dairy industry has the greatest opportunity for development that it has ever experienced if it will only recognize the need for quality products and make every effort to secure them.

One of the most important problems that the dairy industry has is quality, quality and again quality. Before discussing this subject further, it is important to define the author's concept of quality of dairy products which is as follows:

Quality milk and milk products are those which are produced from milk obtained from healthy cows, by healthy personnel, under the most sanitary conditions that the dairy industry knows. Moreover, those products must be free of foreign flavors, pathogenic organisms and undesirable body and texture characteristics due to faulty processing techniques. Quality dairy products must comply with the municipal, state and federal composition regulations.

Becoming specific once more, in the butter industry this definition refers to butter of legal composition, made from sweet cream, free of objectionable flavors, obtained from healthy cows by healthy personnel, and manufactured under the most sanitary conditions of which the industry has knowledge. The same definition applies to cheese and milk products including ice cream. Ice cream should, also, be flavored with excellent fruits, nuts, confections and extracts. Although, it will be difficult to standardize ice cream flavoring for various ice cream manufacturing companies, nevertheless, a uniform product should be consistently sold by the same company.

Now, who is going to see that quality products are produced, processed and marketed?

First, the farmer must be educated to quality control. That is the job of public health officials, university instructors, extension men, county agents and field men. The farmer must, also, be the type of individual who is willing to recognize the importance of quality and then do everything within his ability to practice recommended procedures.

Secondly, the dairyman or "manufacturer" must be willing to reject low quality milk and process the good milk under the best sanitary conditions. He must never be satisfied with just trying to get by, but should build his volume of sales on the principle that every item that leaves his dairy represents the best of his ability.

Thirdly, the distributor should exercise every care in marketing the product under the most favorable conditions. Those conditions should be taught to him by the dairy manufacturer and then inspected regularly by qualified municipal public health officials.

The city, state and federal inspectors should ever be alert to guard against illegal products and to help in educating all who need aid in the correct methods of producing quality products.

Finally, the salesmen representing the various divisions of the dairy industry should be trained in quality control. They can do a very valuable service to the dairy industry if they are willing to place the advancement of dairying above any immediate selfish gains. The salesman is an ambassador of either good or bad will; and a true salesman, in every sense of the word, is one who has only an excellent product to sell and then does everything possible to see that everybody receives the maximum benefits from the service he can give.

In summary, the dairy industry is big, powerful and interesting. It has superior products to sell in a free market that has been created by thousands of doctors, nurses, teachers and public health officials at no profit to them. The industry has the responsibility of giving those unpaid salesmen a product of superior quality. The dairy industry should produce only food of such high quality that it never needs to apologize, then it will always be on the attack—never on the defensive.

THEY OUGHT TO KNOW

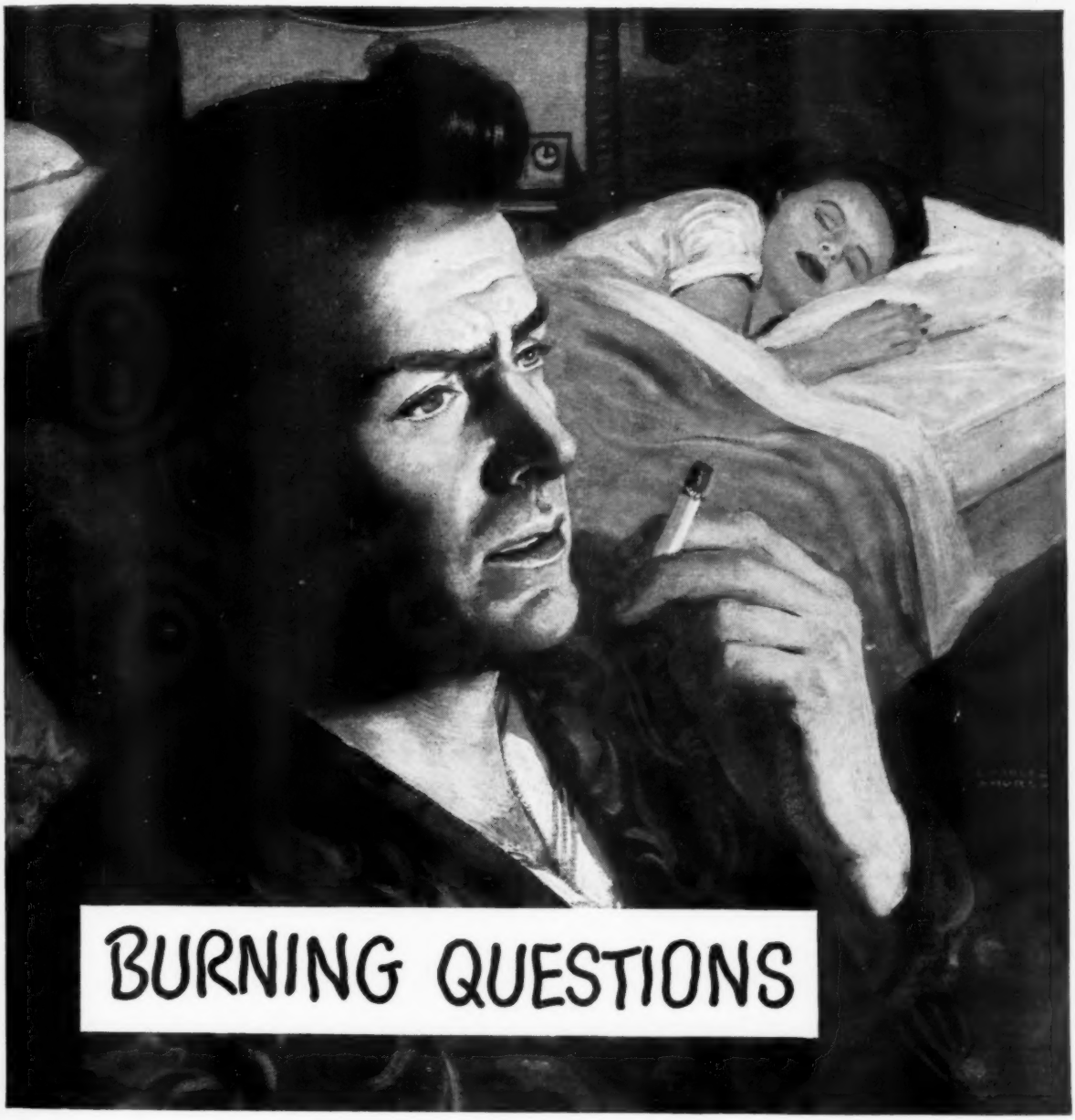
Senator Austin W. Erwin, chairman of New York States Temporary Commission on Agriculture recently announced the appointment of a labor committee to help develop a program of reducing the cost of milk distribution in New York City. The Erwin Commission has been studying the factors involved in pricing milk on the New York market.

Senator Erwin named thirteen representatives of the International brotherhood of Teamsters and five locals serving the New York City milk market. Formation of the committee followed a meeting of the commission with labor unions whose members are employed in milk distribution. At the meeting the commission said substantial reductions in milk prices could be accomplished by reducing costs and that such cost reductions were possible.

In letters of appointment to the union representatives, Senator Erwin said:

"The study of the spread between producer prices and the prices paid by New York City consumers showed great variations in the total cost of distributing a quart of milk. This difference amounted to as much as 2.5 cents per quart.

"This is in itself an indication that economies are possible. The study further analyzed these possibilities of savings, indicating those areas of cost in which the greatest savings possibilities lay.



Late at night, some men do their hardest worrying. Each thought glimmers and glows like the burning end of a cigarette. Chain-thoughts like these:

"How am I doing my job? Have I already reached my top? Are my best earning years numbered?

"And how will that affect my other job—as husband, father, family provider? Will I be able to do the things we've planned? What about college for the children? And our home—will I always be able to meet payments?"

Every man has to ask himself these questions. And not till he finds the right answers will the worry about the future cease.

One fundamental answer, of course, lies in a systematic plan of saving—one that builds soundly for the years ahead.

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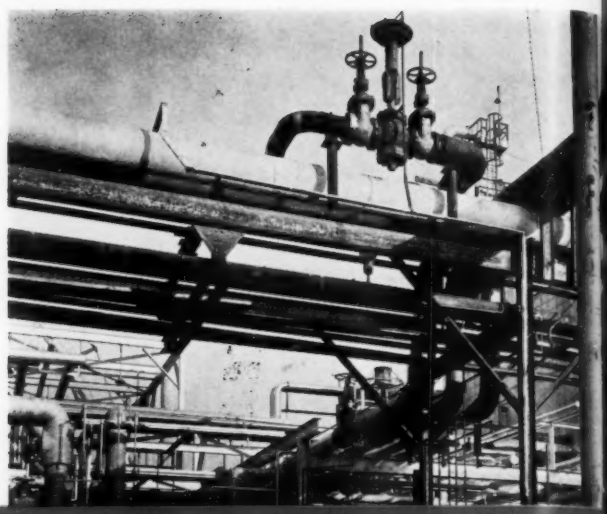


By **JACK MEYER**

Minneapolis-Honeywell Regulator Company

HOW TO PICK THE RIGHT VALVE

THE DAIRY INDUSTRY buys a lot of valves – several thousand dollars worth every month of the year. Since the operation of each piece of processing equipment and the successful integration of all processes for a smooth-running plant depend on the performance of these valves, the fundamental principles governing their selection are of vital importance to every dairyman.

Hand-Operated or Automatic

One of the first decisions to make in selecting a valve for any application is whether manual or automatic operation is desired. Generally speaking, hand-operated valves are used where operation is infrequent, and where automatic or remote operation would offer no particular advantage.

The most common types of manual control valves fall into two general groups; the "quick-opening" valve used for "on-off" control, and the more precise proportional control valve, with a parabolic or characterized plug or disc which permits extremely accurate regulation of the flowing medium. Wherever close throttling control is needed, the high lift hand-control valve is used. Stem travel indicators, with which many of these valves are furnished, show the percentage of total possible flo wwhich is passing through a partially open valve and permit the same flow conditions to be reproduced when desired.

Power operated valves may again be divided into several classifications, being either diaphragm motor operated (pneumatic), electric motor driven, or solenoid operated. Each of these methods offers certain operating advantages, and many factors should be considered in selecting the method of operation that will give maximum benefit at minimum cost.

Diaphragm Motor Valves

In the diaphragm motor valve, which is probably the most familiar of power operated valves, movement of the valve stem is obtained by applying air pressure to a rubber diaphragm, which exerts force on an extension of the valve stem. A spring opposes this motion, so that it is possible to obtain any desired valve position by regulating the amount of loading pressure on the diaphragm.

The "self-operated" valve is a very common form of the diaphragm valve used to maintain temperatures within rough limits where close control is not required. It generally consists of a liquid-and-vapor filled thermal system, with the bulb located in a position where it will be subjected to the temperature that is to be controlled. The vapor pressure of the filling medium is applied directly to the spring-opposed valve diaphragm, and is proportional to the temperature to which the bulb is subjected. Thus, the "self-acting" valve opens or closes itself in response to a change in process temperature, regulating the flow of heating or cooling medium to adjust the temperature.

Instrument Operated Pneumatic Valves

For more critical applications, where closer control is needed, resetting of the control point is required, other conditions are encountered which render the "self-acting" valve unsuitable, a combination of a controlling instrument and a controlled valve is used. When the index of the controlling instrument is set at the temperature to be maintained, a control unit within the instrument adjusts the pressure of a compressed air supply according to whether the process temperature is at, above, or below the set point.

This instrument-regulated air supply is applied to the diaphragm of a control valve, which opens or closes as required to return the temperature to the desired point. All systems based on controlling instruments and air-operated valves work on this principle, although further refinements are needed for more demanding processes.

Remote Valve Operation

The modern trend toward centralized control of processing operations has encouraged the application of the air operated valve which enables a man to regulate valves at remote places in the plant. By varying air pressure from a central

Remote operation solves the problem of opening, closing and throttling this valve, which is located thirty feet above the ground in an oil refinery. In many dairy plants, valves requiring frequent operation are inaccessible, and can be regulated more conveniently and economically from a remote control station.

Life need not consist of one jammed valve after another says Mr. Meyer who points out that a smooth running plant depends largely on the performance of its valves. In this article he tells you how to pick the right valve for the job to be done.

point, it is possible to cause the distant valve to assume any desired position. Diaphragm motors can also be applied to valves of approved sanitary design, so that in the newest dairy plants, it will not be necessary for workers to scramble back and forth through a maze of piping to regulate the flow of milk, steam, water and refrigerant to keep production flowing smoothly.

Electric Motorized Valves

Electric motors are also widely utilized for the purpose of operating valves. Offering the advantages of low cost, dependable operation, easy installation and extreme adaptability, electric motorized valves may be utilized to give either "on-off" proportional, or "floating" control, and can be supplied with either light or heavy duty motors depending on the application and service conditions. Like diaphragm motor valves, they may be operated either by automatic control instruments or by manual push-button switches.

A recent innovation, designed to fill the gap between the "self-operated" valve and the valve-and-controlling instrument combination, is a packaged unit, consisting of a motor-operated valve and a non-indicating controller. This controller contains a thermal fill, similar to that used in pressure-type thermometers, which acts on a small bellows to operate an internal electrical contact. Since the expansion of the filling medium does not have to overcome the internal friction of the valve, but only directs the application of power to the valve motor, the resulting control is more sensitive than that obtained through the use of a "self-acting" valve. At the same time, the low cost of the non-indicating controller and the simplicity of installation allows this combination to be used where the higher expense of an instrument-and-valve combination would not be economical.

Solenoid Valves

For "on-off" control, where a flowing medium is to be either shut off entirely or allowed to flow freely, the electric solenoid valve can often be used to good advantage. The simplest type of solenoid consists of a wire coil, a magnetic plug and a retaining spring. When the coil is energized, the plug is lifted so that it clears the valve seat and the medium is allowed to flow. When the coil is de-energized the plug is seated through a combination of spring action and gravity, thus closing the valve.

One refinement of this type of valve uses the pressure of the controlled medium either to raise or lower the valve, the magnetic plug merely acting as a pilot valve to direct the pressure of the controlled fluid. Since the coil is merely acting to lift the small plug which directs this force, it is possible to obtain a fairly large solenoid valve of this type and still keep

The *Flow Diversion Valve* which plays such an important part in High Temperature Short Time pasteurization, is actually a combination of a solenoid valve and a diaphragm motor valve. Electrical impulses from the controlling instrument regulate the admission of air to the valve diaphragm. Air pressure, when applied to the valve diaphragm, moves the valve to the *Forward Flow* position. When this air pressure is relieved (due to a decrease in milk temperature), a powerful spring immediately returns the valve to *Divert*.

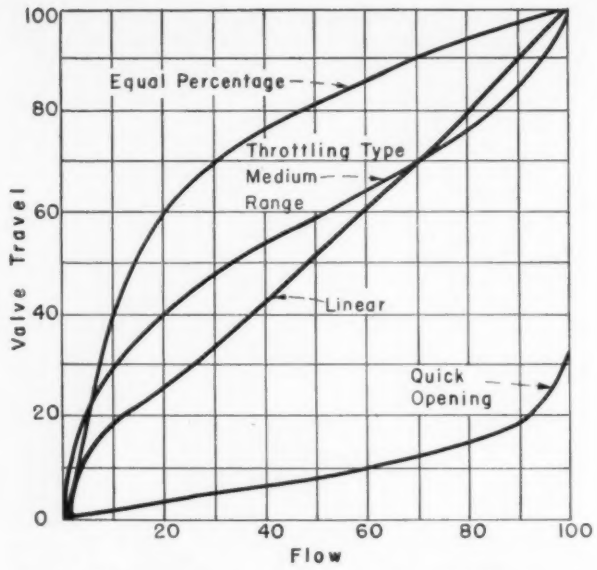
the size and power requirement of the operating coil within reasonable limits.

Proportional Control

The simplest type of control, where the valve is used to give either full flow or a tight shut-off of the controlled medium, is suitable to batch processes or to processes where the temperature may safely fluctuate between limits of several degrees. High-speed or continuous processes require a different sort of control because, in order to maintain the temperature at the desired point, the amount of heating or cooling medium allowed to flow to a piece of equipment must be balanced against the continuous demand of process. For these processes, *proportional control valves* have been designed, which will permit the controlled medium to flow in a quantity that is proportional to the amount of stem movement of the valve.

In such cases the flat or beveled disc of the "on-off" valve is replaced by an elongated plug or a V-ported cylinder, which allows the throttling range of the valve to be extended so that it is effective throughout a greater length of stem travel. Although a flat disc will give some throttling action when it is close to the valve seat, this action is not reproducible and results in rapid deterioration of both the seat and the disc, so that "on-off" valves are not suitable for proportional control.

Most motorized proportional control valves are double seated so that the pressure of the controlled fluid will equalize itself, be exerted both upward and downward on the two valve discs, thus minimizing the force that has to be overcome to move the valve. While the exact plug design depends on the size of the valve, the fluid to be controlled, and a number of other factors, the general objective of characterized plug



The simple solenoid valve is usually the least expensive valve for obtaining on-off control of low pressure fluids such as gas, oil and drain-water. When the coil of the valve is energized, the plunger lifts and the controlled fluid is permitted to pass. Another type of solenoid, suitable for use with fluids at high pressures, contains a small internal valve piston which is magnetically operated. This piston directs the force of the fluid being controlled so that it will move the valve to the desired position.

design is to establish and maintain a definite relationship between per cent of total stem movement and per cent of total flow. The maintenance of this relationship is vital to the proper operation of any proportional control system.

Special Materials to Suit Special Needs

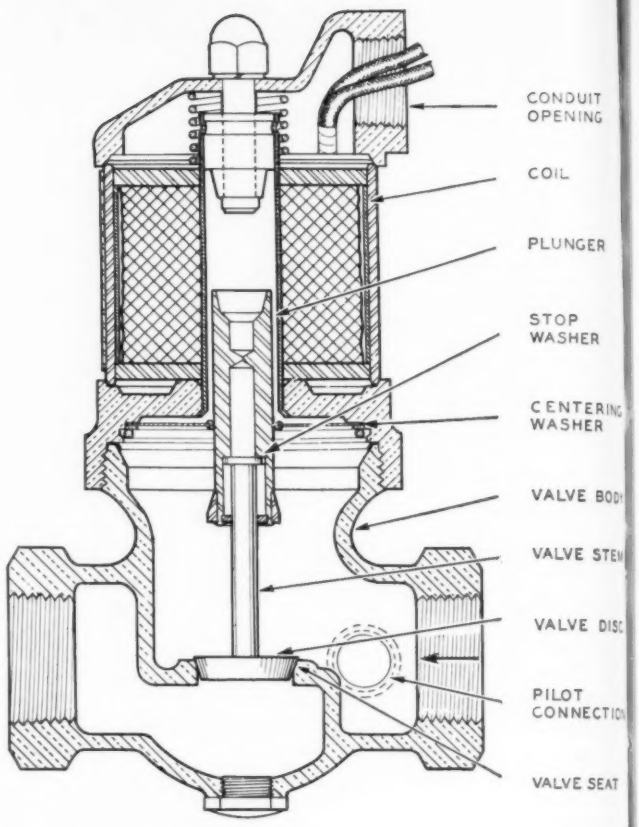
There is no universal material for building valves. Selecting the proper metal from the many available is not an easy job, but the careful balancing of all advantages and disadvantages will enable the dairyman to secure the most satisfactory operation over the longest period of time at the lowest cost.

One source of confusion in material selection is the use of the terms *body* and *trim*. Generally, the body of the valve is the single cast part through which controlled medium flows. Trim is not something added for decorative effect, but is comprised of the inner parts of the valve such as the plug, stem, seat, rings, and other working components. Special trim with standard body materials gives satisfactory results in many applications where all that is needed is to guard against wear of the valve plug, stem, and seat. Special body and trim materials are called for wherever the flowing fluid is of such a nature that it might set up a chemical reaction with any part of the valve.

Sizing of Valves

The exact sizing of a valve is usually best left up to the valve maker's representative, but every valve user should be familiar with the factors that govern this choice. For pipelines of two inches and over, an arbitrary size of one inch less than pipe diameter is sometimes used, but for best results, particularly in the case of proportional control valves, size should be estimated on the basis of flow data.

For sizing a steam valve, the required flow data includes the quantity of steam (in pounds per hour) to be handled by the valve, per cent saturation or amount of superheat, inlet pressure, and allowable pressure drop through the valve. Using



Flow characteristics determine a valve's suitability to a specific control job. Graph above shows that a *Quick Opening* valve approaches full flow when it is only 30% open. Valves designed for proportional control regulate flow over the greater portion of their stem travel. The *Medium Range Throttling* valve is highly effective in the range between 30% and 90% of stem travel. A valve with *Linear* characteristics gives excellent control where pressure of the controlled medium is fairly constant; while a valve with *Equal Percentage* characteristics is capable of giving the best possible results where pressures may fluctuate considerably. By correlating price and performance of each type of valve for a particular job, the valve engineer is able to select the proper design to give the best results at the lowest cost.

this data, the proper valve size can be computed by reference to a nomographic table for the valve design selected.

Valves for handling liquids are sized by means of a similar chart, on the basis of specific gravity, pressure drop, and volume of flow. In the case of gases, a knowledge of the temperature at which they are to be handled is also required. Engineers who frequently have to make such computations sometimes use a special slide rule to arrive at a rapid, fairly accurate estimate of valve sizes.

By-Passes

No matter how carefully a valve is selected, nor how well it is made, there will eventually be a time when it must be removed from its position for maintenance, repair, or replacement. In a properly engineered valve installation, this eventuality is provided for by means of a by-pass, which permits the controlled medium to flow around the valve so that process operation is possible even when the valve is not in place.

When air or electrically operated valves are used, the by-pass offers additional protection in the event of failure of the supply of compressed air or electricity, since it permits manual regulation of flow during the emergency. To facilitate installation and to eliminate a number of joints and unions which are possible sources of leakage, a one-piece by-pass unit has been

Jargon of the Trade

Because dairymen may be unfamiliar with some of the terms used by valve designers, manufacturers and sales representatives, the following glossary of terms and definitions is offered in the hope that it will prove valuable in understanding both the article presented here and the talk of representatives of the valve industry in future.

BY-PASS—An arrangement of hand valves and piping in a piping installation which permits the removal of a valve or pressure unit from the flow line without interrupting a process.

DIAPHRAGM MOTOR — An actuating mechanism which regulates a valve by means of compressed air.

DIRECT ACTING — A term applied to a power operated valve in which the application of power closes the valve. Also known as "normally open" or "air to close".

HYSTERESIS — (As applied to proportional control valves) — the inability of a valve to assume its correct position in response to a change in controllin air pressure.

TRIM — Valve seat rings and inner working parts.

SEAT — The portion of the valve in contact with the disc or plug when the valve is in the closed position.

DISC — The movable portion of the valve, which by its distance from the valve seat, regulates the flow of the controlled medium. Also known as *plug*.

REVERSE ACTING VALVE — A motorized valve which opens on the application of power (or air). Also known as *air-to-open, normally closed*.

PACKING — The material surrounding a valve stem, which prevents the escape of the fluid flowing through the valve.

PACKLESS VALVE — A valve in which the seal is a bellows to give maximum protection against leakage.

RANGEABILITY — The ratio of minimum controllable flow to minimum controllable flow in a proportional control valve. For instance, a valve that will give accurate control between 20% and 80% of full flow has a rangeability of 4.

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designed in which the valve bodies and pipes needed for a by-pass are cast into a single unit. This unit can usually be substituted for the conventional by-pass at a saving both in initial cost and maintenance expense.

Life Need Not Consist of One Jammed Valve after Another

The selection and installation of valves in accordance with the above information will do much to insure trouble-free plant operation, but this is only part of the entire picture. To fulfill his obligation to the user, a valve manufacturer must not only make his product of the highest quality materials and in the best possible design, but he must also be prepared to supply replacement parts and repair service when needed. This does not mean that the valve user must necessarily confine his purchases to large organizations having numerous outlets, nor does it mean that he must restrict himself to local suppliers in the hope that proximity will make it possible to obtain more prompt service and repairs. Rather, he must examine this aspect of a valve's utility on the same basis used to estimate its other merits—the results he can reasonably expect to obtain.

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INDUSTRY PROBLEMS

Dr. Robert F. Holland and Dr. James C. White, both of the Department of Dairy Industry at Cornell University, conduct their question and answer column each month in the "Review". Questions should be addressed to either Dr. White or Dr. Holland, Department of Dairy Industry, Stocking Hall, Cornell University, Ithaca, N. Y.

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The Detection of Salty Milk

QUESTION — About this time of year we are often troubled with salty and bitter flavors in our milk and cream. Is there any test that we can apply to the raw milk on the deck that will detect this without the necessity of tasting all the milk coming into the plant?

R. P. V., Iowa

ANSWER — It is probable that the trouble you experience in the winter months from salty and bitter flavors is caused by cows that are in late lactation or have just freshened. Under these conditions abnormal amounts of salt (sodium chloride) are secreted by the udder tissue and the flavors described result.

Several tests have been devised for the rapid detection of high chloride content in milk and the Sharp and Struble method is as follows:

1. With a Babcock pipette place 18 gm (17.6 ml) of milk in a glass beaker (about 400 ml capacity) in which the milk can be rotated rapidly.
2. Add 2 ml of a 10 per cent solution of potassium chromate.
3. Add from a burette silver nitrate solution containing 8.6245 gm of silver nitrate per liter of solution, constantly rotating the beaker, until the first slight reddish orange color is obtained.
4. Multiply the number of milliliters of silver nitrate solution used by 0.01 to obtain the percentage of chloride.

The normal upper limit for chlorides in milk is 0.14 per cent. Rather than reject milk which only slightly exceeds these standards, it is better practice to warn the producer of the situation and ask him to withhold the milk from stripper cows and those at the very beginning of lactation.

Mastitis will also produce a high chloride test in milk but from the description of your trouble, it appears to be seasonal in nature and is probably associated with the stage of lactation of the animals.

Consumption of Evaporated Milk

QUESTION — In the last year I have discovered that a lot of people are using condensed milk in place of milk or cream to cook with and for coffee. Has the consumption of condensed milk increased during the war and is its use generally spreading?

J. F. B., New Jersey

ANSWER — It is difficult to break down the figures on concentrated milks because the official figures on consumption combine evaporated milk and condensed milk, and figures are not available after 1946. However, the per capita consumption of the two has been climbing steadily. In 1930 the per capita consumption was 13.5 pounds; in 1935 it was 16.1 pounds; and in 1930 each person in the United States consumed 19.2 pounds. Consumption since then is at about that level. The 1946 figure (estimated) was 18.8 pounds. The production of cased evaporated milk rose during the war years by more than 50 per cent and has not dropped appreciably. Much of this is exported but some is reflected in increased consumption inside the U. S. A.

Consumption per capita has increased and probably the biggest cause has been the high price of fluid milk at the doorstep. Perhaps the recent price decreases will decrease the consumption of concentrated milks.

WHEN IS A CALF?

"Calves", says Dorothy Green, pretty Hollywood model, "Are part of my business." "They are also the foundation of the milk business," says Francis Kullman. In episode pictured here Mr. Kullman, former president of the Milk Industry Foundation, attempts to separate a calf of the milk variety from calves of the model variety. Calf's name is "Peanuts" Judging from the way he has the young lady tied up we'd say he was a wolf in bull's clothing.

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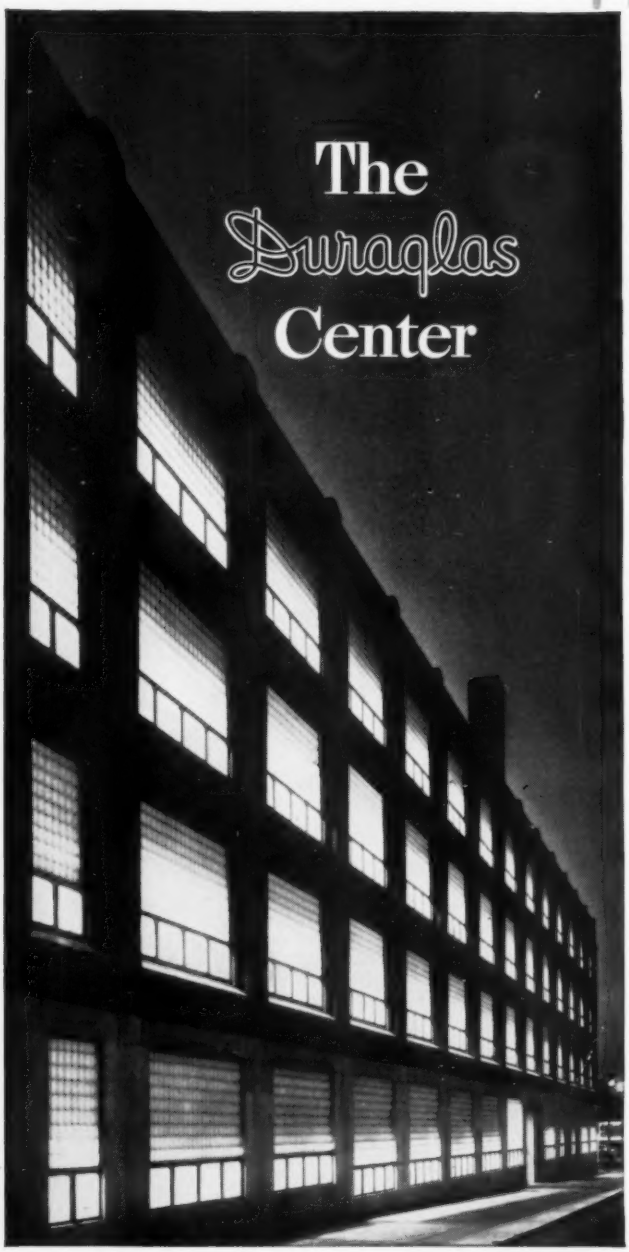

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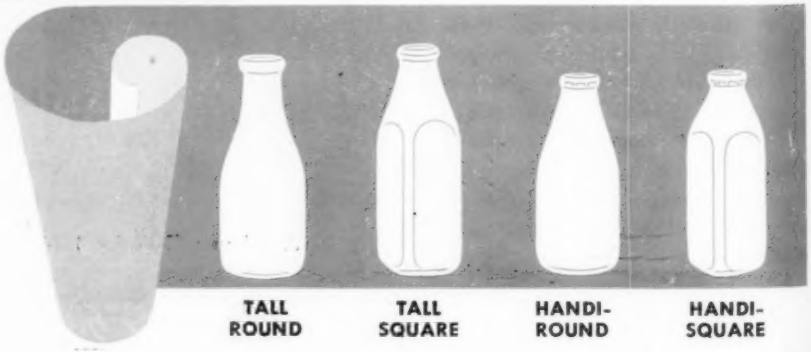

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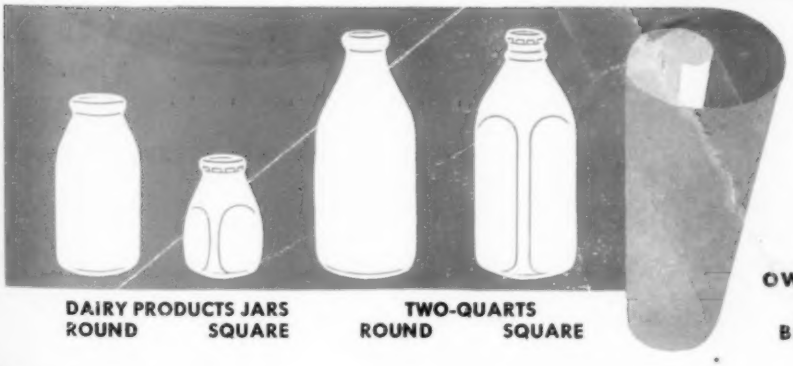

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Pressure, Power, and Common Sense

By **W. F. SHARPHORST**

W. F. SHARPHORST

Fundamentals Are the Same

FUNDAMENTALS OR BASIC PRINCIPLES are always pretty much the same. You may sometimes feel that your own problems are "entirely different" and peculiar to your own plant. But that is seldom the case. A heat unit in your plant is the same as a heat unit on the other side of the world. A degree Fahrenheit is the same in every nation on the globe. Water has the same characteristics at the equator as at the north pole, and so has steam. A coating of scale on a boiler gives as much trouble in Asia as in North America. In the making of ice just as much heat must be extracted from water at the south pole as on the Sahara Desert. Pressures, speeds, volumes, lengths, metals, chemicals, reactions, colors, lubricants, transmissions, strengths, weaknesses, and so on, are much the same in all plants on this earth. All human beings, too, behave in much the same way.

Hence it is well to take an interest in plant problems everywhere. Perhaps some operator of a distant perfume factory has solved your own "peculiar" problem. It generally pays to broaden out and take a look through the other fellow's plant whenever possible. And it usually pays to attend industrial and engineering shows and exhibits which after all are largely a display of the results of those basic principles that we should make it our business to understand.

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For example the other day while having lunch with an old acquaintance—a good friend who once was a salesman of boiler equipment—this writer was told about a boiler and a boiler operator in the sawmill section of the South that the writer considers worth publishing.

It was a vertical boiler which was used for furnishing steam to a donkey engine, which in turn drove the sawmill.

A colored man operated the boiler and engine, and it was the colored man who interviewed the salesman. The salesman was politely informed that "nothing is needed".

The salesman looked the boiler over and noticed that it didn't have a pressure gage, nor was there a gage glass. It did possess a safety valve of the weighted lever type.

"How can you tell when the pressure is getting too high?" asked the salesman.

"As soon as the safety valve disc begins to wiggle, then I know the pressure is about right", replied the colored man.

"How about the water?" the salesman continued. "How can you tell whether there isn't enough water, or too much water?"

"Come around here", invited the colored man, and the salesman followed him.

The colored man had a pail of water behind the boiler with a whitewash brush in the water. He removed the brush and painted a vertical strip on the boiler's side, from bottom to top.

"Now watch the wet strip", said the colored man.

"Sure enough", the salesman assured this writer, "The wet strip showed precisely where the water line was because the water painted on the steam space evaporated quickly whereas the water on the water space evaporated slowly. When the water on the steam space was gone the water line was clearly defined."

All of which was exceedingly interesting to this writer, and he is inclined to believe that it will interest most other readers. This is a true story.

●

Smoke and Boiler Baffle Problems

HERE ARE SOME QUESTIONS that have come in to this writer from time to time pertaining to various articles. Readers may remember some of the articles. The first questioner asked, "How should a horizontal water tube boiler be baffled to eliminate smoke? We have a drastic smoke ordinance in this city and are wondering whether baffling will solve the problem or whether it will at least help to solve the problem."

Proper baffling cannot always solve smoke problems, but it will certainly help. As a general rule, smoke can be reduced by moving the bridge wall back and by sloping the baffle wall. Or, if necessary, in extreme cases it is advisable to lower the grate. In other words give the furnace ample volume so that all combustible matter will be consumed before the tubes are touched by the gases. Then there will be no smoke. Proper baffling reduces gas velocity to such an extent that the gas has sufficient time to burn completely before striking the tubes. Combustion is not instantaneous anywhere—not even in a bomb or cannon. If the furnace is too small, and if the first pass is too small, the gas velocity will be too high. Result: Incomplete combustion and smoke.

Another questioner wrote, "In your article you say nothing about radiant heat. Isn't it a fact that a properly baffled boiler will absorb more radiant heat than will an improperly baffled boiler?"

Yes. That is a very important point which I certainly should have mentioned in my article but for some unknown reason failed to do so. In the article I showed a number of

examples where the bridge wall was moved back so as to make the furnace larger. In those cases considerably more radiant heat area was added—area which absorbs radiant heat. Very often the area is doubled and sometimes tripled by proper baffling. It is always advisable to so design a boiler that it will absorb as much radiant heat as possible. The more the better. This assists in increasing both the capacity and efficiency of the boiler.

A third questioner wrote, "What is your opinion of the permanent cast type baffle?" Answer: There is no such thing as a permanent cast type baffle, excepting in boilers that are not used. If you have reference to baffle walls that are not provided with expansion joints, such baffles almost invariably crack as soon as the tubes are heated. That is why baffle wall flexibility is so important. Solid block baffles cannot be flexible.

The last question asked was, "Instead of the rule which you gave for determining the annual percentage of saving on the investment, can you give the rule that applied to fuel oil in place of coal?" Answer: To find the annual percentage of saving by a boiler baffle wall of good design, multiply the number of gallons of fuel oil burned in the furnace per year by the cost of the fuel in cents per gallon. Then multiply by 0.03. This gives the annual saving in cents. Then divide by the cost of the baffle wall in dollars. The result is the annual dividend paid on the investment."

●

F. F. Sharphorst is a consulting engineer in Newark, New Jersey. Close to fifty years experience as an engineer has embraced dairy problems as diversed as removing milk from udder to milk pail to the installation of complicated refrigerating machinery in modern milk plants. He was born and brought up in South Dakota, taught agricultural engineering in New Mexico, wrote advertising copy in New York and in 1911 became chief engineer for a refrigerating machinery concern in Newark.

His column, *Pressure, Power, and Common Sense* will appear every other month in the *American Milk Review*. If you have any problems of an engineering nature he will be glad to discuss them with you on these pages. Write to W. F. Sharphorst, 45 Academy St., Newark, N. J.

Maybe You Don't Need a New Chimney

IS THE CO_2 in your chimney gas low? Is your chimney giving trouble? If so, it means that the volume of your chimney gas is greater than necessary. You may be thinking that you need a new chimney — a larger chimney.

But by investigating the matter the chances are you will find that due to your low CO_2 the correct solution is to install a CO_2 outfit and then rectify the CO_2 content. Thus the purchase of a CO_2 outfit may be the means not only of saving the cost of a new and large chimney but it usually reduces fuel costs materially and soon pays for itself. This writer does not know of any CO_2 indicator, recorder, or outfit that costs nearly as much as an average new chimney.

For example, with 12 per cent CO_2 the volume of chimney gas is only about one-half as great per pound of fuel as when the CO_2 is 6 per cent. When the CO_2 content is at its maximum the total volume of gas is as small as can be made and the smallest possible chimney will take care of the load. But as an extreme in the other direction excess air sometimes runs as high as 600 per cent. Isn't it plain that when excess air is 600 per cent a chimney several times larger will be needed than where the CO_2 is "just right"? All of which is just another proof that CO_2 equipment is usually well worth buying, installing, and using.

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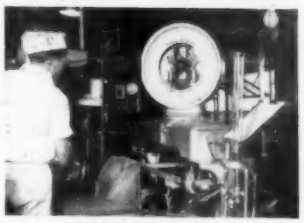
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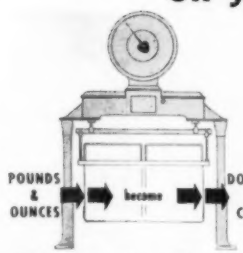

Errors made at the scale stay wrong forever. There is no chance to recheck; either because the milk (or other dairy product) has been shipped or has lost its identity in the general stock. You've got to be *right* — weigh it right with Toledo!

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All the Way

How to PREPARE and STORE SKIM MILK FOR USE IN ICE CREAM

Viscosity, Temperature, Agitation, Time of Storage, Moisture Content Are Among Important Factors Governing Process

By **B. H. WEBB**
United States Department of Agriculture

SKIM MILK MAY be prepared for use in ice cream in the following six forms: (1) Plain condensed, (2) superheated condensed, (3) frozen condensed, (4) sweetened condensed, (5) low-lactose condensed, and (6) dried. Table 1 gives an outline of the processes of manufacture, the composition, and the properties of these products. A vacuum pan is required in the manufacture of all the condensed skim milks; in addition, a sugar centrifuge must be used to separate the lactose in preparing low-lactose condensed skim milk, and special drying equipment is needed for drying skim milk.

The physico-chemical behavior of the milk protein has influenced the development of processes for preparing skim-milk concentrates for use in ice cream. The physical state of the protein determines the viscosity of the milk during manufacture, storage, and use. High viscosity in fresh concentrated milk is considered an indication of high water-binding ability which, in terms of the characteristics of the finished ice cream, aids in developing a smooth-bodied ice cream with a minimum of iciness. In stored concentrated milk, however, the development of high viscosity is usually considered undesirable because it indicates that biological changes and a progressive denaturation of the protein have taken place. The high water-binding ability of such milk (and consequent aid in developing a smooth-bodied ice cream) may have passed.

Exactly what physical condition of the milk protein is necessary to obtain optimum results in the finished ice cream is not clear. It seems probable that the milk should be treated so that the protein will be brought near to its coagulation point. At coagulation, it approaches its maximum viscosity and water-binding ability. Processing the milk beyond the coagulation point of the protein brings wheying off and a decline in water-binding ability. The protein of atmospheric roller-dried skim milk is completely denatured, and this product is not highly regarded by most ice-cream manufacturers.

Shrinkage in ice cream is probably related to the physical state of the milk protein, but conclusive evidence on this point is still lacking. It is to be expected that as protein denaturation proceeds air-cell strength of the ice cream will weaken, and this may encourage shrinkage.

Since the condition of the milk protein is important in the production of a smooth-textured ice cream, it will be profitable to consider some factors that affect the protein. Viscosity

Table 1.- Manufacture and storage of skim-milk products for use in ice cream (a general tabulation of normal conditions)

Kind of skim-milk concentrate	Process of manufacture: Forewarming treatment: Temperature	Forewarming treatment: Time	Sugar added per 100 pounds of skim milk	Total solids content after concentration	Treatment of concentrate	Characteristics of finished product: Composition: Solids-not-fat	Composition: Sugar	Composition: Water	Viscosity	Satisfactory storage: Temperature	Satisfactory storage: Time	Relative merits for ice-cream use: Advantages	Relative merits for ice-cream use: Disadvantages
	°F.	Minutes	Pounds			Percent	Percent	Percent	Centipoises	°F.	Weeks		
Condensed:													
Plain	160	20	0	30	Cool to 40° F.	30	0	70	70	40	2	Fresh product easy to prepare.	Perishable.
Superheated	160	20	0	30	Heat to 190° F. until thickened; cool by vacuum.	30	0	70	40,000	40	2	Makes viscous smooth mix.	Difficult to handle; viscous; perishable.
Frozen	145	30	0	30	Cool to 34° F.; freeze at -10° F.	30	0	70	100	0	12	Suitable for storage.	Protein gradually becomes insoluble during storage.
Low-lactose 1/	145	10	5.9	68	Hold quiescent at 68° F. for 20 hours; centrifuge to remove crystallized lactose.	33	30	37	20,000	40	4	62% of lactose removed; can be used to raise milk-solids-not-fat of mix.	Viscous; semi-perishable.
Sweetened	180	15	12.8	72	Continuously cool to 60° F., or cool in vat with stirring to 86° to crystallize lactose.	30	42	28	8,000	60	52	Suitable for storage and retention of milk flavor.	Viscosity increases in storage; may become difficult to handle.
Dried	160	20	0	40	Heat to 160° F. or at higher temperatures for shorter periods.	97	0	3	------	70	52	Especially suitable for long-term storage.	Requires reconstitution; develops stale flavor in storage.

1/ For a detailed discussion, see Webb, B. H., and Williams, O. E. Jour. Dairy Sci. 17: 103-114. 1934.

and stability or coagulation observations are among the simplest and most valuable tests for determining the physical state of milk protein. The charts in figures 1 to 5 show the effect of conditions of manufacture and storage on the viscosity and protein stability of condensed and dried skim milks.

The forewarming treatment applied to the raw milk affects the viscosity of the plain and sweetened condensed

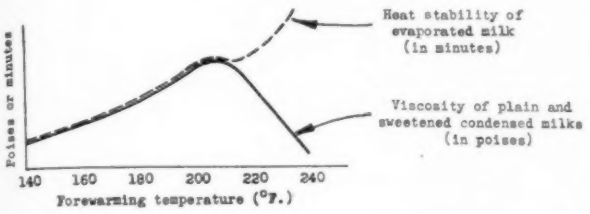

Figure 1. — The general relationship between the viscosity of plain and sweetened condensed milk, the heat stability of evaporated milk, and the forewarming temperature used in the manufacture of each type of milk.

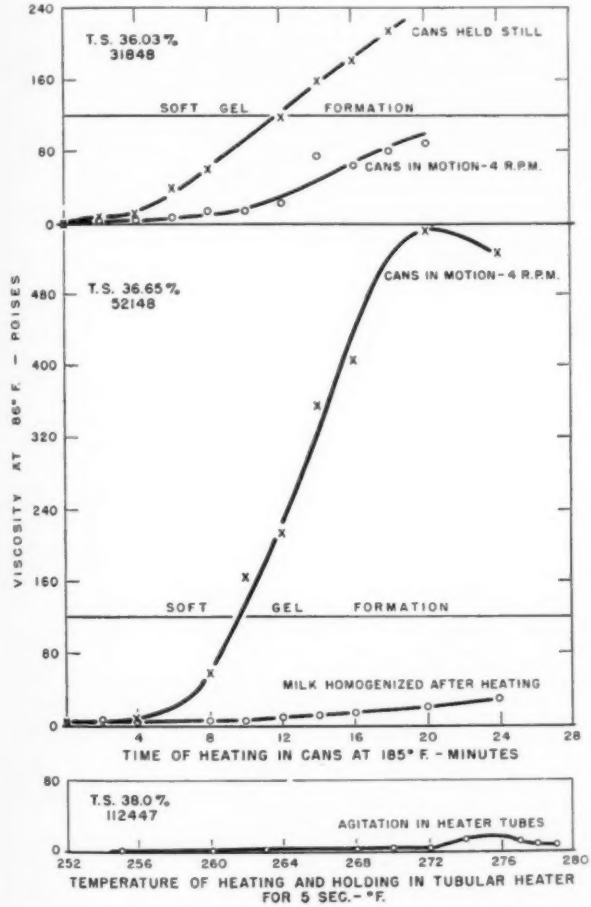

Figure 2. — The effect of different types of agitation during heating on the viscosities of three concentrated skim milks.

milk made from it. Figure 1 shows the general relationship between the forewarming temperature and the viscosity of plain and sweetened condensed milk (in poises) contrasted with the relationship of the forewarming temperature to the

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heat stability of evaporated milk (in minutes). The forewarming time is usually shortened as the temperature is raised.

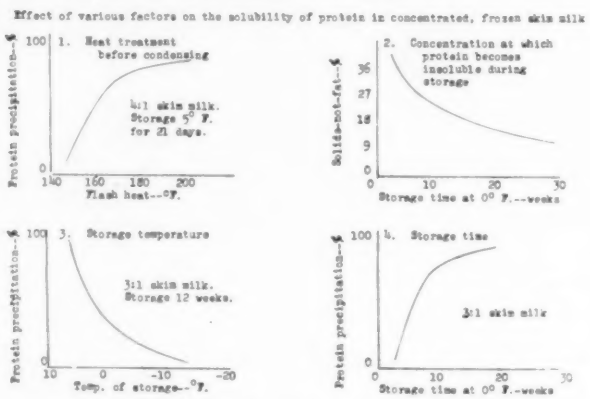

Effect of various factors on the solubility of protein in concentrated, frozen skim milk
1. Heat treatment before condensing
3:1 skim milk. Storage 5° F. for 21 days.
Protein precipitated--%
Flash heat--°F.
2. Concentration at which protein becomes insoluble during storage
Solids-not-fat--%
Storage time at 0° F.--weeks
3. Storage temperature
3:1 skim milk. Storage 12 weeks.
Temp. of storage--°F.
4. Storage time
3:1 skim milk
Storage time at 0° F.--weeks

Figure 3. — Effect of various factors on the solubility of protein in concentrated, frozen skim milk. (Curves 1, 3, and 4 were drawn in part from data from Doan, F. J., Warren, F. G. Milk Indus. Foundation Bul., 39th Ann. Conven., 1946. Curve 2 is the best that could be drawn from data from several sources.)

The viscosity of concentrated skim milk is affected not only by the heat treatment of the milk before concentration but also by the conditions of heating after concentration. Heat stability decreases with increasing concentrations of milk-solids-not-fat. Agitation of the milk during heating causes visible coagulation to occur sooner than if the milk is heated with a minimum of agitation. Continued agitation or pumping during the onset of coagulation drastically reduces the thickening that normally accompanies the formation of a visible coagulum. Figure 2 shows the effects of different types of agitation during heating on the viscosity of three concentrated skim milks.

The milks shown in the upper part of the figure were heated in small cans in an autoclave with and without mild agitation. The reduction of the viscosity of milk 52148 by homogenization is shown. The lower curve shows the viscosity of a skim milk heated in a high-velocity tubular heater over the same coagulation range as that through which the milks in the upper curves passed. Viscosity was decreased by agitation, especially during the formation of the coagulum. The results plotted in figure 2 have direct application in the manufacture of superheated condensed skim milk, and in the heating of concentrated skim milk preparatory to drying it. It is difficult to pump and to spray concentrated skim milks of excessively high viscosities.

Skim milk, condensed to a solids content of 26 to 36 percent, is sometimes held in frozen storage for use in ice-cream manufacture. The skim-milk protein gradually becomes insoluble during the storage period. Some factors that favor the development of insolubility are: (1) High heat treatment before condensing, (2) concentration to a high solids content, (3) high storage temperatures, (4) fluctuation of storage temperatures, and (5) long storage periods.

The graphs in figure 3, based on the limited information available in the literature, illustrate the probable nature of these relationships. Additional quantitative studies are needed.

In addition to frozen condensed skim milk, sweetened condensed and dried skim milks are sometimes stored for use by ice-cream manufacturers. The length of time these products may be held depends on the conditions of storage.

Excessively thick sweetened condensed milk is not suitable for use in ice-cream mix. The viscosity of sweetened

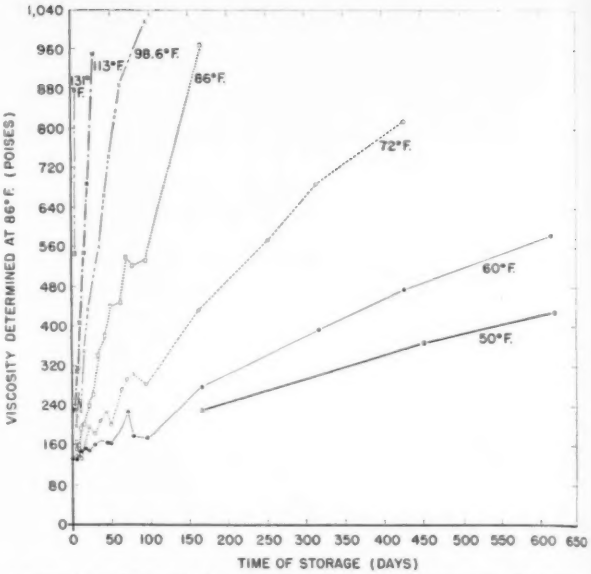


Figure 4. — The effect of time and temperature of storage on the viscosity of sweetened condensed milk stored in 2-ounce cans. All samples were from the same batch of milk, but the samples used for storage at 50°F. were delayed 2 weeks in transit at summer temperatures, causing an undue initial increase in viscosity. (Webb, B. H., and Hufnagel, C. F. Jour. Dairy Sci. 31: 21-30. 1948.)

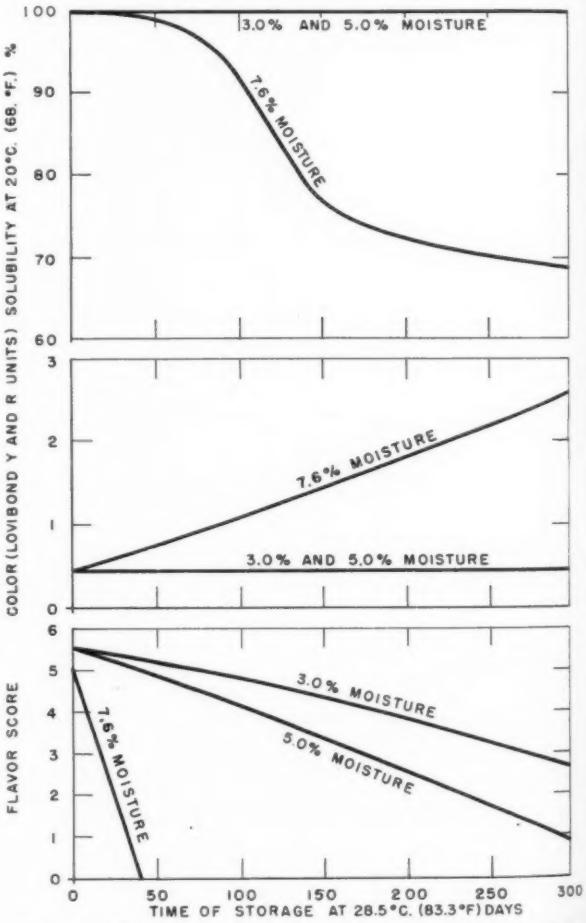


Figure 5. — The effect of variations in moisture content on flavor, color, and solubility changes in dried skim milk during storage. (From the results of Henry, K. M., Kon, S. K., Lea, C. H., and White, J. C. D. Jour. Dairy Res. 15: 292-363. 1948.)

condensed milk increases arithmetically with storage time and logarithmically with storage temperature. Figure 4 shows the thickening effect of time and temperature.

The flavor, color, and solubility of dried skim milk are affected by the time and temperature of storage and the moisture content of the powder. Figure 5 shows some of these relationships, plotted from the data of Henry and co-workers. For maximum storage life, the moisture content of dried skim milk should preferably be less than 3 percent and never more than 4 percent, and the storage temperature should be 70°F. or below.

[1] Prepared for presentation at the Eighth Annual Short Course in Dairy Manufacturing, University of Georgia, Athens, Ga., November 9, 1949.

[2] This work was done in part with funds provided by the Research and Marketing Act of 1946.

SELLING CAN BE AS DIFFICULT AS YOU MAKE IT

WE FREQUENTLY see the example of two salesmen who appear to be about equal in general qualifications – age, education, personal appearance, and attention to business. Yet one seems to get ahead easily, while the other lags behind. What is the reason for such differences?

There are elements of luck which enter into many success stories. In the average case, however, we find that the salesman who forges ahead knows how to make friends and keep friends, while the other does not. A large percentage of all business is done through personal connections. Men are sometimes embittered over such relationships, and speak of them in terms of "pull" and "favoritism." But it generally boils down to the art of being liked and trusted.

The salesman who makes friends is essentially a giver. He gives freely of himself through the medium of courtesy, interest in the other man, helpful information, and other such intangibles as companionship, entertainment, and sociability. In this way he opens the door to smooth and easy selling.

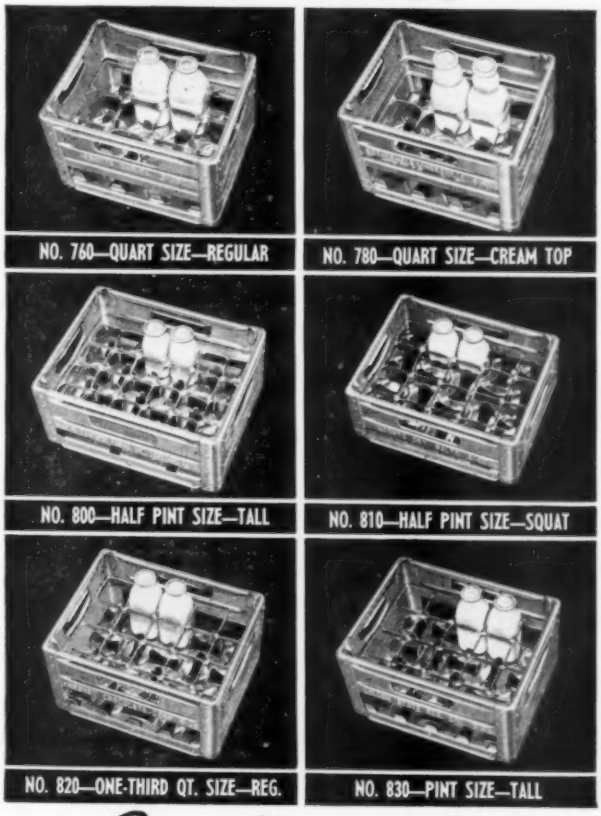
Most salesmen are too intent on one objective – to take an order. They forget the little things which pave the way for business. It is well to be business-like during working hours, but we must never forget that human relationships are the medium through which business is done. It is human nature to prefer to buy from people whom you like.

The clever salesman makes it a point to know as much as he can about his customer's business, so that he can talk in terms of *you* instead of *I, me and mine.* He makes a definite effort to remember names, not only of the boss, but other employees whose good will is all important. He cultivates the art of habits and personal interests of those whom he contacts regularly.

Further than this, he sells his own character as consistently as the quality and sales appeal of his merchandise. His approach appears indirect, because he seems to enjoy his work and his customers seem to enjoy buying from him.

A man must take his work seriously, yet he does not have to display tension in his manner. Tension indicates lack of confidence. It is the man who doesn't seem to care whether he is employed or not who is always being offered jobs and the same is true of the self-assured and confident salesman.

Announcing 3 NEW MODELS
NOW 6 SIZES
ERICKSON Aluminum MILK CASES



Our Answer to an Increasing Demand
Manufactured by:
C. E. ERICKSON CO., INC.
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SOLD EXCLUSIVELY BY
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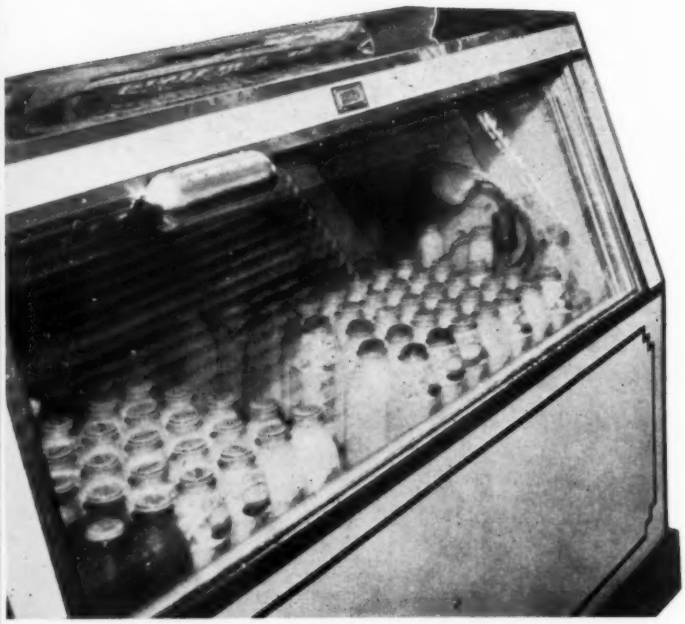
PROFITS from the top of the Dairy Case

By J. E. BEDFORD



COMPETITION for position in the dairy case is stiff... Every dairy selling milk and dairy products through grocery stores knows how important it is to get a preferred position in the dairy case. Good locations inside the dairy case can make a difference of from twenty to fifty quarts of milk sold each day through this outlet.

Grocers know that their customers appreciate any extra service they can be offered and when these retail merchants find for some reason that one dairy's products are selling better than anothers they give the top selling dairy the preferred position inside the dairy case. This increases the already swelled sales of one dairy over competitors selling through the grocery store.

Milk and dairy products, according to a recent survey of grocery shopping habits, are purchased largely on impulse. True, grocery shoppers may have milk on their shopping list, but usually they haven't selected a brand they will buy. As the customer opens the dairy case she will pick up the brand that is handiest and put it in her shopping cart.

Driver salesmen know how important it is to get the top spot in the dairy case and in a few instances there is stiff competition to get to the grocery store first in the morning. This gives the first driver the best spot in the case and his sales will show a healthy growth as customers come to depend on one particular dairy's milk.

Not all grocers will give driver salesmen for dairys a free hand in placing their products inside the dairy case. When this happens there isn't much the dairy can do to build volume sales in the grocery store. It is more a matter of depending on outside influence – advertising and selling of the dairy products in the home – to make the brand on the selected list for grocery shoppers.

Come Out on Top

One dairy found another answer to this problem of building sales volume through grocery stores at a nominal cost by using the top of the dairy case. Competition for the top of the dairy case isn't as tough as for favored spots inside, yet properly used this spot can produce extra sales and more profits for any dairy selling through grocery stores.

This dairy arranged to have twenty-five advertising displays placed over the dairy cases in grocery stores for a trial period of two months. The milk plant manager decided to select some of the smaller independent grocery stores for this test run of point-of-purchase advertising so he could check the results better. Sales in these smaller stores hadn't been fluctuating as much as in some of the super-markets thus these stores would provide a better testing spot that could be controlled.

After this two month test period the plant manager came to the conclusion that this type of advertising does pay dividends. Sales had shown an increase in all locations where the top of the dairy case was used for the point-of-purchase adver-

tising. Larger shelf space, in many cases, and preferred positions in others were given this dairy inside the milk case because customers were demanding the dairy's brand of milk.

This same free space in the grocery store can be used by other dairies with good results. There is no cost for the use of this space the cost of having the point-of-purchase display pieces installed over the dairy cases is nominal. In fact, if the total cost is spread over the life of the display and the number of people being exposed to the advertising is considered this form of advertising is perhaps the least expensive type of advertising a dairy can use.

Here are a few suggestions that might prove helpful to any dairy planning to inaugurate a point-of-purchase advertising program using the top of the dairy case. These thoughts and ideas have been suggested by dairymen who have used this method of promoting their products to advantage.

1. EMPLOY A DISPLAY SERVICE

Installing point-of-purchase display pieces is an art in itself and most dairies have found that in the long run it is cheaper and better to have professionals handle the work. These display service companies develop a theme, prepare the complete display, install it in the desired spot, and guarantee upkeep for a period of about six months.

Cost of having all of this work handled by a display service varies with the number of displays to be installed and the section of the country. In some sections the cost is only $3.50 to $5.00 per display which will catch the eye of grocery shoppers for a year or more . . . . about one cent a day to keep reminding every customer entering the grocery store about the dairy's products.

Other display rates vary from $1.50 per display to as high as $15.00 for the more elaborate point-of-purchase units. Checking with any local display service will give dairymen the exact cost in any locality. Most progressive display service companies have a listing in the telephone book under signs and will make an estimate of the cost for any dairy.

2. ENCOURAGE DRIVER SALESMEN TO SELL DISPLAYS

Grocery store managers and owners probably won't come right out and ask to have the top of their dairy case used for advertising. However, if the driver salesman for the dairy promotes the idea and can show the type of sign to be used it will probably get acceptance in most stores.

Selling the grocer can be made easier if the display service company has been doing other display work in the store and the results have been satisfactory for the grocer. Then, too, most of these display services dairy case displays that will fit into the general character and color scheme of the individual store rather than having it on a mass production basis. This assures the grocer of an attractive display that will add to his store's appearance.

3. COORDINATE ALL ADVERTISING

Dairy case top displays get the best results when they are made a definite part of the whole advertising campaign. When the dairy is promoting some special slogan, trade-mark, or selling point this is the natural place to bring the grocery shopper face to face with the last advertising and the product at the point-of-purchase.

One dairy found that by making its dairy case top displays miniatures of outdoor poster panels it was using in a campaign the whole program was tied up to bring customers right up to the check stand with the advertised brand. In another case the dairy used the trade-mark that appeared on its milk bottles and cartons to bring out the selling message on top of the dairy case. Still another dairy used the same

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Dry steam heating assures uniform heat transfer and flavor-protection to milk or cream. Flooded cooling quickly reduces temperature. Deluxe or standard models from 20 to 500 gallons capacity. Built for long years of trouble-free service. Write for details.

Complete Equipment For Modern Milk Plants

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Manufacturing Engineers for the Dairy Industries
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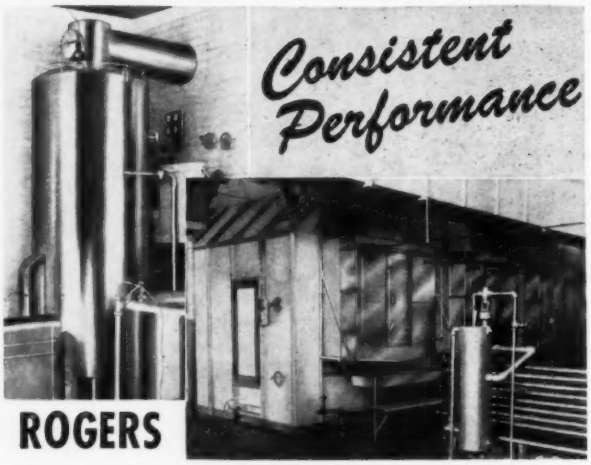

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Year after year, since 1883, Rogers equipment has demonstrated consistent performance in turning out top quality products at low cost. This carefully built up "know-how" is reflected in scores of extra features that have long made Rogers Vacuum Pans, Evaporators, and Rogers Spray Process Milk Drying Plants "The Choice of Dairyland." For increased volume and plus-profits in 1950, investigate the many advantages of product-diversification the Rogers way. We'll gladly give you the interesting details.

"The Choice of Dairyland" Since 1883.. Rogers

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300 SPRUCE STREET · PHILADELPHIA 7, PA.

material in its point-of-purchase displays as it used on the sides of the dairy trucks to give unity to the advertising.

4. TEST THIS TYPE OF ADVERTISING

No set list of rules can be presented that will apply in all cases, but after a test the effectiveness of this point-of-purchase advertising can be proved. As mentioned previously, one dairy ran a test in small, independent grocery stores before it started the program on a large scale.

Any test that is conducted under typical test conditions will point the way to a better application of this type of dairy advertising. Problems will be presented and can be ironed out before a major expenditure is made and then the results can be anticipated with accuracy and the cost controlled to make the investment worth while.

5. KEEP DISPLAYS UP TO DATE

Point-of-purchase displays can be kept in the same spot for periods of six months or a year with no increase in the cost. In some cases such a practice is best, but there are a few other points to consider before a dairy starts this top of the dairy case advertising program on a yearly basis.

Because of the nature of the display material used – crepe paper, banners, and corrugated cardboard – the displays may fade after a few months. Dust and dirt will accumulate and detract from the value of the displays. During the summer months fly specks will cover the display pieces and not give customers the right impression of the dairy or its products.

Then, too, when the advertising theme for the dairy is changed there isn't a complete coordination of all advertising unless the point-of-purchase displays are changed. All seasonal displays, which are most effective during the current season, actually detract from the complete display if they are out of date. For instance, a timely Christmas point-of-purchase display unit will attract plenty of attention during the holiday season, but during the middle of January or in February Santa Claus is out of place on top of the dairy case.

Competition is keen for preferred positions inside the dairy case in most grocery stores. Milk plants work hard to get the best spot, but there is one place where competition hasn't developed and where dairies can come out on top – the top of the dairy case.

"Yes, that's true- my name is Charlie, but in the first place I'm older than you, and furthermore...."

COPYRIGHT 1949 CARTOONS-OF-THE-MONTH

The Morning's Mail

December 23, 1949.

Dear Mr. Myrick:

We have just read with interest your editorial entitled, Mississippi Wins Again, which appeared in Volume 11, No. 12, of the American Milk Review. Please accept my congratulations on such an excellent editorial.

Having worked closely with the Collegiate Students' International Contest in the Judging of Dairy Products for a great number of years, I am deeply appreciative of what Professor Herzer has done in the coaching of judging teams, and by so doing has focused national attention on dairy leadership in that section. I do appreciate your giving publicity to his efforts in your paper.

With kindest personal regards, I am,

Very sincerely yours,

G. M. Trout, Professor
Dairy Manufactures

To Dr. Trout, who has worked tirelessly to build the Collegiate Students' International Contest in Judging Dairy Products, our thanks for his kind words. To Professor Herzer and his cracker-jack team of judges another bouquet. *Ed.*

Gentlemen:

On page 30 of the December, 1949, issue of the AMERICAN MILK REVIEW you had an article entitled "Minimum Wage and Hour Law". In the middle of the page you have a subtitle, "This Is What It Means to the Dairy Industry" and under point No. 1 you state: "the new law exempts from both the minimum wage and the overtime provisions any individual employed as an outside buyer of poultry, eggs, cream and milk in their raw or natural state".

It was my understanding that outside buyers of poultry, eggs, etc. were exempt only from the overtime provisions. Is this correct or am I mistaken?

Yours very truly,

DAIRY PRODUCTS MARKETING ASSN., INC.

According to the best available information, any individual employed as an outside buyer of poultry, eggs, cream, and milk in their raw or natural state is exempt from the provisions of the law and, therefore, exempt from both the minimum wage and overtime regulation. *Ed.*

Dear Sir:

Recently the New Mexico Dairy Products Association was formed and I was selected as executive secretary. Ammon Bradshaw, secretary of the Colorado Dairy Products Association referred your name to me for placement on your mailing list. I do not know your policy regarding such matters but if any cost is involved please let me know. In any case place us on your list effective this date. Any and all cooperation bettering the industry will be greatly appreciated.

Sincerely,

J. D. Kailer
Executive Secretary
New Mexico Dairy Products Ass'n

Congratulations to dairymen in New Mexico on the formation of their new association. We are happy indeed to place you on the long list of those who receive the American Milk Review. ***Ed.***

Children love chocolate milk especially when it is made with Forbes Quality Chocolate, the result of 24 years experience in serving the dairy industry.

FORBES CHOCOLATE Offers You These Advantages:

- **A TRUE CHOCOLATE FLAVOR — NO BITTERNESS**
- **FLAVOR KEPT IN SUSPENSION—NO SEDIMENT**
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Write or wire for a FREE sample and compare it — or better still, send us a trial order.

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SINCE 1901

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SINGLE TRIP CAN
for
FRESH MILK
and
ICE CREAM MIX

STERN CAN COMPANY, INC.
183 ORLEANS STREET • EAST BOSTON 28, MASS.

Let's Talk Accounting

By JIM KLUGER

QUESTION NO. 1 — Will you outline a method whereby I can maintain an accurate daily check on loadings, sales, drivers' accounts?

ANSWER NO 1. — The essential requirement for an accurate check on customers' and drivers' accounts is a load-settlement sheet form which will act as a current control over all the accounts in a driver's book. The theory here is for the driver-salesman to record detail charges and credits to customers in his route book, and for the office to keep the summary record on the load-settlement sheet. Any difference between the balance shown on the settlement sheet and the balance "pulled" from the route book is then either a shortage or overage against the driver. A load-settlement sheet which fulfills the requirement is shown in figure I. For illustration, only two products are shown, but, in practice, all the products and units handled would be shown on the form. Its actual size would be about 8½ x 13-14 inches. In operation, the load-settlement sheet is prepared daily. The columns headed "load" are filled in by the driver, either for the following day or second following day deliveries, as he estimates his requirements. As he is loaded out, the loader checks off each item. Returns are checked in when the driver returns. Wholesale sales are entered in the column "wholesale" (from copies of wholesale delivery tickets). The differences between net loads and wholesale sales must have been sold at retail, and are so charged. Any adjustments for samples, etc., are taken care of below. The sales are priced, added, and total sales recorded. The "balance yesterday" is carried forward from the previous day's ending balance. In the illustration, 10 wholesale bottle deposits were charged to wholesale customers at 2 cents each, and 1 quart of A was given as a sample. Collections of $100 were made. The total balance of $486.27 should be the balance of customers' accounts in the route book.

If a daily check is desired on that balance, the route book balances will be added each day to compare with the settlement sheet balance. Usually, however, a weekly "pull" of the route book is sufficient.

Ordinarily, the illustrated form is prepared in duplicate so the driver can have a copy. Sometimes the entire form is completed by the driver and checked by the office. In other cases, the office does the pricing and extending. It is perhaps

Jim Kluger, specialist in dairy accounting, conducts his exclusive column in the "American Milk Review" each month. If you have an accounting problem or simply an accounting question write to Mr. Kluger at Kapleau, Kluger & Company, 1414 South Penn Square, Philadelphia, Pa. He'll do his best to give you the straight dope.

FIGURE I

DATE January 3, 1950
NAME
ROUTE No. 1

		LOAD 1st	LOAD 2nd	Extra	Total	Returned	WHOLESALE SALES Sold	@	Value	RETAIL SALES Sold	@	Value
Grade A ~~Guernsey~~ MILK	Qts.	100	25		125	5	10	.21	2.10	110	.23	25.30
	Pts.											
	½Pts.											
STANDARD MILK	Qts.	300			300	10	100	.19	19.00	190	.21	39.90
	Pts.											
	½Pts.											
	Bulk											

DRIVERS COLLECTIONS				BOTTLES OUT / IN				
BILLS	100	00	410	300	TOTAL WHOLESALE	21.10	TOTAL RETAIL	65.20
SILVER			BALANCE BOTTLES OUT					
CHECKS			110		TOTAL SALES		86	30
			100 retail		BALANCE YESTERDAY		500	00
			10 wholesale		OTHER CHARGES Bottles			
					wholesale - @ 2¢			20
					TOTAL AMOUNT DUE		586	50
			WELFARE CREDITS		SHORTAGE			
			TRANSFER CREDITS		Sample A given	23		
OFFICE COLLECTIONS			OTHER CREDITS					
			CASH TURNED IN			100 00		
					TOTAL CREDITS		100	23
					BAL.		486	27
TOTAL COLLECTIONS	100	00						

Driver's Signature

better, where feasible, to have the driver at least insert unit sales and price the items.

●

QUESTION NO. 2 — In a recent fire, we suffered damages of $10,000 against our plant building. Under our policy, we recovered $7,000 from the insurance carriers. Would the $3,000 difference be allowed as a loss? Should the building's value, when repairs are completed, be reduced by that $3,000?

ANSWER NO. 2 – The $3,000 uncompensated loss is an allowable deduction as a casualty loss. When you complete the $10,000 repairs to the building made necessary by the fire loss, you will presumably have but restored the properties to their original state, and the building will be worth neither more nor less than it was before the fire. Hence, you would not reduce the asset by any amount. The bookkeeping entries would be:

Dr. Accounts Receivable—Carriers (or cash)	$ 7,000	
Fire Loss	3,000	
Cr. Reserve for Building Replacement		$10,000

When you rebuild:

Dr. Reserve for Building Replacement	$10,000	
Cr. Cash		$10,000

PACKAGING EXPOSITION

Chicago Event April 24-27 to Be Biggest in Nineteen-Year Series

The American Management Association has announced the schedule of events it will sponsor at its 19th National Packaging Exposition at the Navy Pier in Chicago, April 24-27. At the same time the Association reported that more exhibit space for the 1950 packaging show had been contracted for to date than the total of all space at the 1949 show.

The Exposition is the annual market place for machines, equipment, materials, supplies and services for packaging, packing and shipping in all industries. In 1949, when the Exposition was held in Atlantic City, 207 exhibits utilized 115,000 square feet of display space. By January 1st of this year more than 128,000 square feet of space had been allocated to exhibitors, AMA said.

Officials stated that additional space is still available. According to present indications, they estimated total space used may reach 140,000 square feet, nearly 25 per cent more than last year.

AMA announced that the Exposition will open Monday, April 24, at 12 Noon and close Thursday, April 27 at 3 P.M.

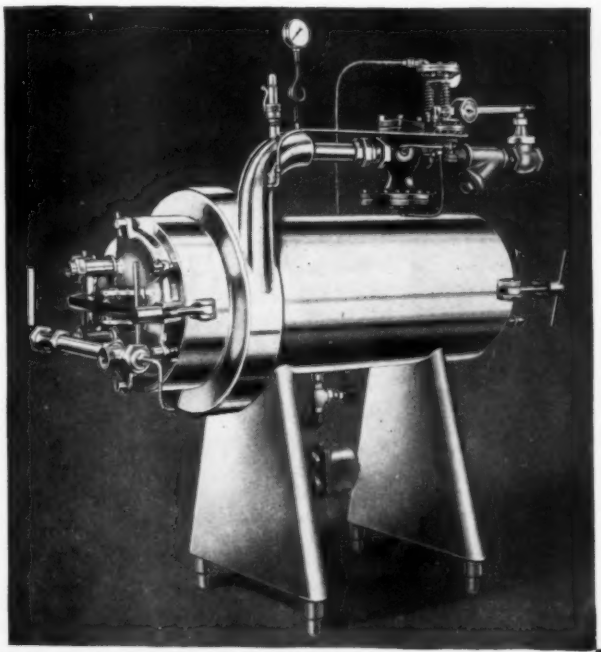
The AMA's annual Conference on Packaging, Packing and Shipping will be held concurrently with the Exposition. The hours for the Conference will be 9:30 A.M to 12 M., and 2 P.M. to 4:30 P.M. on Monday, Tuesday and Wednesday.

Subjects for the six sessions will be concerned with packaging management and techniques. Program details will be announced early in March.

The Conference is open to both members and non-members of AMA and the Exposition is open to representatives of all kinds of businesses. The Conference and Exposition are designed for both the executive and the specialist seeking methods and tools to reduce costs, increase sales, improve production quality and step up operating efficiency.

People who think the average U.S. citizen is a hard-drinking man-about-town have another think coming, on the basis of figures that show just what he drinks each year.

Milk, beer, soft drinks, coffee and canned fruit and vegetable juices are the nation's five most popular beverages, according to an American Can Company analysis of government and industry figures.



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TUBULAR HEAT EXCHANGERS

Footnotes for Fieldmen

Right Equipment Is Necessary For Proper Cleaning of Utensils

Brushes, Cleaning Compounds, Plenty of Hot Water Are Practical Musts In the Production of Quality Milk

By **D. J. HANKINSON**
University of Massachusetts

THE QUALITY of milk from any farm will be no better than the attention given to the cleaning of the dairy utensils. There can be no short cuts to cleaning. There are always enough bacteria left on equipment surfaces to produce prodigious numbers of their kind if all traces of milk are not removed. For a farmer to give careful attention to feeding, breeding and herd management and then to neglect this final step in the production of milk is like wearing an unpressed suit of expensive clothes. Judgment is passed, not on the pedigrees of the animals, nor the cost of the suit, but on the final product as it is offered for inspection. We cannot reason with bacteria or pass laws for them to observe. We cannot remove them after they have gained entrance to milk. The only satisfactory course of action is to *keep bacteria out of the product. The proper cleaning of dairy utensils is a very important means of excluding bacteria. Likewise, the choice of cleaning compound is an important part of the cleaning program.*

CLEANING PRINCIPLES: An effective cleaning job involves the teamwork of the three following factors; suitable brushes, warm water, and an effective cleaning compound.

Suitable brushes shaped to reach sharply curved surfaces and recesses are important. Stiff bristles are necessary. Nylon or similar synthetic bristles are stiff, long wearing and hence are ideally suited for utensil cleaning. Soaking action or water motion alone should never be relied upon to do the cleaning job because all surfaces are not subject to the same force and cleaning will not be complete.

Warm water is necessary for complete solution of the cleaner, more efficient cleaner action, melting of butterfat and comfort of the workman. *Hot* water at a temperature hotter than the hand can bear is too hot and will lead to milk stone deposits because of the "cooking" action on the milk solids.

Water is absolutely necessary for cleaning and rinsing. Water supplies vary considerably in hardness characteristics from farm to farm and season to season. This factor makes the choice of a cleaner a very important one. Hard water will deposits its minerals on milk utensils and "water stone" will result. Hard water in contact with milk will deposit milk solids more readily and "milk stone" will form.

Dairy utensil cleaners are compounded to meet the three following requirements: (1) control of water hardness, (2) effective removal of milk deposits which may be both grease-like and glue-like in nature, and (3) freedom from irritation to the hands of the workman.

INGREDIENTS IN A GOOD DAIRY UTENSIL CLEANER: The development of two types of compounds has aided greatly in preparing good cleaning compounds. *An efficient cleaner should contain both types of compounds,* namely (1) *a water softener* and (2) *a wetting agent.*

The newer water softeners, or water

conditioners as they are sometimes called, control water hardness very effectively due to the fact that hard water salts do not separate out but instead remain in suspension. These compounds are called by any of the following names: polyphosphates, complex phosphates, sodium tripolyphosphates, sodium tetraphosphates and sodium hexametaphosphates. These substances are not effective cleaners in themselves. Their principal function is to soften water. Other compounds must be present in the cleaner which will attack, loosen, soften, and dissolve the material deposited on the utensil surfaces. These compounds are standard ingredients of cleaners and will not be discussed.

Wetting agents are sometimes called organic or synthetic detergents. A wetting agent should be present in a cleaner (1) to improve the penetrating qualities and (2) to aid in emulsifying the butterfat. Better contact of the cleaning compound with the equipment surface and the deposits on the surface is obtained and more thorough cleaning results. Emulsification of the butterfat permits the fat to be rinsed away and thus will not be deposited elsewhere on the equipment surface.

Wetting agents form a suds as does soap when shaken in solution. Suds formation by shaking in a milk bottle is a practical test for the presence of wetting agent in a "soapless cleaner." Unlike soaps, wetting agents do not form greasy deposits with hard water. They can be rinsed readily from the equipment.

These compounds can be used as the sole cleaner for dairy utensils. However, the cleaning cost is greater than when a mixture of water softener, wetting agent and general cleaner is used. Commercial products of this nature are Vel, Swerl, Dreft, Tide, etc.

Amount of Cleaner to Use: Careless use of cleaning compounds is expensive. The amount to use varies with water characteristics, number of utensils to be washed, and the properties of the particular cleaner in use. The manufacturer's directions should be followed. The recommended amounts may be increased or decreased, depending upon the conditions at hand. In the absence of specific directions, the following amounts are approximate:

	tablespoons	
soft water	— 4	(level) per 10 gal. water
hard water	— 5	(level) per 10 gal. water
very hard water	— 6	(level) per 10 gal. water

SANITIZING DAIRY UTENSILS: Sanitizing is an important step in cleaning dairy utensils. This step is performed to destroy bacteria which remain after washing. The chemical ingredients present in the dairy cleaners are not germicidal, hence a separate treatment is necessary. Sanitizing may be accomplished with *hot water* (180°F.), *steam, dry heat,* or *chemicals.* Such chemicals as chlorine compounds or the newer quaternary ammonium compounds (Roccal, Ammerse, Inhibac, etc.) are available. Sometimes a chemical sanitizer is combined with a cleaning compound for the purpose of performing both steps at once. Such a compound is commonly called a detergent-sanitizer. This single-step cleaning method is not uniformly accepted by health authorities. The use of either quaternary ammonium compounds or the detergent-sanitizer compounds should have the approval of the milk inspector from the area receiving the milk.

CLEANER SELECTION GUIDE: Because detailed ingredients are not listed on the package, the purchaser may find it difficult to choose a cleaner intelligently. In view of this fact the only satisfactory guide to cleaner selection is to choose a product of a reliable manufacturer. *When buying a cleaner for dairy utensils, ask for one containing both water softener and wetting agent.*

A list of cleaners which contain ingredients according to the recommendations contained herein may be obtained from your County Agent.

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Cherry-Burrell Washing Powders are specially blended for definite cleaning jobs. Each combines elements which provide high detergency, water conditioning and easy rinsing. Each is blended to meet specific water conditions.

Clean and sanitize with maximum efficiency and real economy. Use Cherry-Burrell Washing Powders. Good equipment and complete sanitation help produce quality products. Special farm dairy cleaners are also available.

Ask your Cherry-Burrell representative about the right cleaning compounds to fit your individual needs.

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trendmaker in a great industry

PLAIN TALK from a PLAINS STATE

By **JOHN BURNHAM,** *Fargo, North Dakota*

THIS IS ONE of those January days in Dakota – a 40-mile wind; 15 below zero; busses, cars and planes grounded. The weather bureau is quoted in frequent radio warnings: "... visibility zero; much colder in the Red River Valley tonight, lows of 25 to 40 below zero, tomorrow rising to 15 to 20 below. Please stay off the highways; all roads blocked and the highway patrol urges that everyone stay off the roads until the blizzard abates and the roads can be cleared. Attention, Martin Gjelland of Hillsboro wishes to inform friends he has arrived safely in Fargo. Please inform his mother ..." and so it goes, always concluded by a long list of notices, most of which start: "There will be no school today at ..."

A good day to sit and chat in a cracker barrel mood. And we hope nobody will take what we have to say as anything more than that, a thinking-out-loud, not to be taken too seriously, or remembered too long, or resurrected adversely.

We're beginning to worry some about this business of support prices, of government's artificially establishing and maintaining quotations for butter and cheese and milk and dried milk products. It is sacrilege to say it, but government wet-nursing of cotton, as an example, has maintained a whole generation of bad farming practices in the south – bad for the soil and the people of that region, and expensive for the rest of us.

Government supports seldom take cognizance of quality, are seldom a spur to better quality or to economical and businesslike operation.

We'd hate to see the mailman lose his job because of change of administration, but civil service does seem to place a premium on mediocrity, stultifying initiative. And isn't the same thing true to great extent of price supports? Probably we're entirely wrong, but the thought persists.

Price supports do not get food to American consumers more cheaply. Price supports do not cause the producer to work and worry to cut his production costs. The fact that many other segments of our economy get subsidies is poor argument for justifying them for agriculture. Maybe the whole structure is unsound. Ironically, because oleomargarine prices are more or less set by butter prices, always lagging a certain bit behind butter, government support prices for butter guarantee profitable market level for the vegetable oil substitute. Nobody wins. Especially the urban taxpayer, who pays through the nose twice – in taxes for subsidies and in higher prices for food for the table.

The whole gamut of incentives had a logical place during wartime, and even during the "tapering-off" period immediately following war's end. But isn't it possible that in the America of today we are inclined to make through highways out of bridges spanning emergencies?

We must realize that our agricultural population is an ever-shrinking (in size only) portion of America's population, and that we are seeding a field of resentment in the hearts and minds of the rest of the nation. Wouldn't it be better, now that our agricultural population is as well-to-do as ever in history, to take a little less. Perhaps later we'll really need the good will of urban consumers.

We, in dairying, could apply ourselves to three things: (1) producing dairy products at lower costs; (2) Processing and marketing more efficiently, and with less waste, and (3) Merchandising and advertising aggressively, to hold present markets and enlarge them.

Aren't those things better than government bribes, or do we wish to sell a birthright of freedom for a mess of pottage termed "security?"

Supposing we chose the former. We could produce dairy products for much less today, I firmly believe, if we had a national urge to do just a few things: To raise our annual production per cow by 50 per cent, through better milk cows and better management. To lower production costs through wide use of cheaper cattle housing and more convenient, labor saving handling of feed, milk and manure. To breed better cows through use of DHIA testing and artificial insemination. To produce cheap feed more cheaply, with less labor costs, by turning more and more to grass farming. To use the newest mechanized tools and REA power to cut labor in the fields and about the farmstead. To study our soils which can be the source either of good health or illness for both plants and animals.

So much for production. In processing and handling perhaps we could take a lesson from the packers, who boast that they utilize all of the pig but the squeal. There is no quick, easy answer for dairy wastes, but we must all grant that there are wastes. In the areas which sell only

WEATHER REPORT

Everybody talks about it, even folks from out thar whar it's really cold. Says Mrs. John Burnham, "On Wednesday when I took the bus to work it was 33 below. In Bismarck, 200 miles west, it was 44 below. I have three blocks to walk from the post office, made two stops in hotel lobbies to get warm and still my legs were frostbitten." To think that it was 70 in New York last week.

farm-separated cream the most valuable nutrients in the milk go not to humans but to the calves and pigs.

Suppose Joe Blow, the farmer, took a truckload of fat steers to the Armour stockyards and was told blandly, "Well, all we are making now is steaks, but we'll buy the rear quarters of your steers and those front quarters you can take home and grind up for tankage for the pigs." Joe Blow would think Armour's were nuts. He'd be right. Yet the comparison with a butterfat dairy economy does, to some extent, hold true.

It is true that we must create markets for the milk solids, that we must make it possible to get them to market at low cost and without depreciation of quality, but perhaps a nation which can devise atom bombs and turbo jet motors can figure that one out. I do know there is an awful lot of skim milk and buttermilk and whey going down the drains, not even back to the livestock and the soil. There are wastes in distribution of processed dairy products, in part due to an acquiescence with labor's demands that outmoded practices must be retained so that employment is not affected. If that practice is sound we should throw the Linotypes out of The New York Times and construct highways with pick-and-shovel crews while the bulldozers rust away. Processors and distributors of dairy products are not encouraging markets while they submit to uneconomically distorted costs in getting the products to the consumer.

(In all fairness, the least blamable link in the chain from cow to customer is the processor, who takes huge risks but has taken more steps toward modernization, labor-saving and new economies of business than all the rest combined.)

Our third item for consideration is aggressive merchandising and advertising. Dairying, in protecting its markets with legislative walls instead of sallying forth with the armor of aggressive merchandising, is no more guilty than the cotton, wool, potato, railroad, silver, or airline boys, all of whom at one time or another have depended on government gifts, bribes, fences, monopolies or favor for protection. Again, it is no excuse to point to the errors of others, and dairying must forget that old illusory Maginot line and fight it out on the basis of price, quality and merchandising.

PRESENTING THE LADIES

(Continued from Page 23)

was bottled at the Rosebud plant. Two years ago a paper operation was added. These things add up to one thing; somebody is doing a job of work out there where the automobiles grow.

Alyce Saunders runs the Rosebud Creamery with a firm hand and an able hand. But one of the refreshing things about her is the fact that she learned long ago that business is not an end but a means to an end. And so she takes the Pressenda and holds down the first violinist's chair in a municipal orchestra. She belongs to the Detroit Yacht Club and can flemish down a line in the best nautical tradition. She belongs to Lambda Tau Delta Sorority and is a member of the Detroit Soroptimist Club.* And, as though these activities were not enough, she manages to find time once each month for that most feminine of feminine activities, a ladies' bridge club.

So we give you Mrs. Charles Saunders, business woman, club woman, musician, sailor, and wife. She has combined many activities into one harmonious whole. She is at once a credit and a challenge to the industry and the nation.

*For information leading to the discovery of what a soroptimist is the American Milk Review will pay eight cents. Mrs. Saunders didn't tell us and the dictionary was uncooperative.

The American Dairy Association is fine, but it needs more money, more of a staff, more security in planning an impressive program, a program which should cost many millions, should cover all America, and should be continuous.

We all have read the comparative figures — butter spends a few thousand dollars on advertising, oleo millions and cigarettes many millions. Maybe it will be necessary for ADA to go to the processors for part of their budget, perhaps asking the processors to match the farmers' June checkoff, dollar for dollar. Maybe ADA would be smart to put more money and more emphasis into fewer outlets.

My personal whimsy is that ADA should be sponsoring one of the hottest coast-to-coast Sunday night network programs on the air. A little of the money could be derived by leaving research (excepting consumer research) to the colleges and experiment stations which already are paid to do just that.

Another whimsy is my belief that ADA should quit the express truck advertising. As an industry we use trucks on the farm, from farm to market, as processors, as distributors, and in getting our products to the consumers. As an industry we post our bulletin boards solid with placards on highway safety, pedestrian safety, especially transportation safety.

As an industry we know that lithographed posters on trucks are a dangerous distraction if anybody looks at them, and no damn good as advertising unless people do. Let's throw them out and catch our audience at home Sunday night, along with Jack Benny and Phil Harris.

The storm is getting worse. Wind increasing, and mercury down to 20 below. The cracker barrel musings are ended. And just a last word — please don't quote us adversely. We've said inflammatory things purposely, because they are the spurs which rouse men to thinking. But we have said them for that reason alone.

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Alabama Convention Probes Into Problem of Moving Surplus Milk

Undeveloped Old-Folk Market and Needs of Growing Children Offer Promise — Price Must Come Down

By **CLARA H. RUTLEDGE**

SCIENCE and salesmanship teamed up at the annual convention of the Alabama Dairy Products Association to point the way toward a solution of the surplus problem. "Growing children need four glasses of milk a day and old people should continue to take at least one pint of milk a day", said Dr. E. Neige Todhunter, Director of the Research Laboratory of Human Nutrition, University of Alabama.

"Let's sell milk", said Alf R. Nielson of Alfar Creamery, West Palm Beach, Florida. Pointing out that there was a surplus in nearly every state in the Union, Mr. Nielson urged dairymen to make the necessary drastic changes to move the milk off the market. "We've got to get prices down so that everybody can use milk", he said.

The convention, which was held January 20-21 opened with the registration of some two hundred delegates. A meeting of the board of directors was held the night before and the first event of the day was the luncheon. Greetings were brought from the State of Alabama by Hon. Haygood Patterson, state commissioner of Agriculture, from Alabama Dairy Boosters by W. A. Ames president of the Boosters and from the Dairy Maids of Alabama by their president, Mrs. S. M. Reese. Mr. Bryan Blalock, president of the Southern Association of Ice Cream Manufacturers, spoke on "Buttermilk, Taters and Taxes".

Five addresses featured the afternoon business session, the first by the president of the Association E. L. Widemire of Sylacauga who presided at the meeting. Following him were John R. Ward speaking on "Our Greatest Danger". Mr. Ward is Executive vice-president, State Chamber of Commerce; Dr. George H. Marsh, Director, Division of Agricultural Chemistry of the State Department of Agriculture, spoke on "Fitting our 1927 Dairy Code to 1950 Conditions"; Dr. P. H. Tracy, Professor of Dairy Technology, University of Illinois, had as his subject "What's New"; and Alf R. Nielson, President of Alfar Creamery, West Palm Beach, Florida, closed the program with "Let's Sell Milk".

The Dairy Maids who had spent the afternoon sight seeing joined the men for cocktails as guests of the Boosters Club and all had dinner together followed by dancing in the ballroom.

The Saturday morning session featured Dr. Todhunter's talk "Milk, Its Place on Today's Meal". "The Industry's Public Relations Program" was the subject of a panel discussion by Col. B. F. Castle, Executive Director, Milk Industry Foundation, Washington, D. C., Roy I. Ricksham, Merchandising Director, American Dairy Association, Chicago, Illinois, and Robert North, International Association of Ice Cream Manufacturers, Washington, D. C.

Public Relations Symposium

There was a symposium on Public Relations for the first part of the afternoon session. Taking part were Robert Brown of the Opelika Creamery, Opelika; H. E. Shurrett, Perry Creamery, Tuscaloosa; W. J. Dunn, Lily Pure Company of Anniston and J. C. Bear, Bear Sales Company of Mobile. A most interesting Demonstration of "Dairy Products of the Nutrition Wise" was put on by Miss Bertha Brownlow, 4-H Club member of Winterboro, Alabama, assisted by Miss Ann Barr, Assistant Home Demonstration Agent of Talladega. "The Farm Bureau's Dairy Program" was the subject of a talk by John A. Garrett, Director of Organization for Dairying, Alabama Farm Bureau, and Prof. Herzer, Head of Dairy Department, Mississippi Agriculture and Mechanical College, spoke on "Taste Tells".

At the close of this meeting resolutions were passed on the following subjects: (1) Endorsing the combined efforts of the American Dairy Association, the National Dairy Council, the Milk Industry Foundation and the International Association of Ice Cream manufacturers made in promoting increased demand of all types of dairy products. (2) Endorsing the activities of the International Association of Ice Cream Manufacturers in their efforts to prevent the production of imitation products and the substitution of labels and the use of dairy terms for products which are not dairy products. (3) Endorsing the program of the dairy committee of the Farm Bureau in its effort to promote production and consumption of dairy products.

Three new directors were elected during the Friday afternoon meeting making the list of present directors as follows: Milk Division—John L. Whatley, Opelika, vice-president; H. E. Shurett, and Don Rogers, Birmingham; Ice Cream Division — W. (Jack) Dunn, Anniston, vice-president; Joe Bear, Mobile, and George Barker, Birmingham; Concentrated Milk Division—C. T. Barton, Uniontown, vice-president; E. L. Widemire, Sylacauga, and Jerry Roden, Boaz.

At a business meeting held during the Saturday breakfast hour, the following officers were elected — H. E. Shurett, Dothan-president to succeed E. L. Widemire of Sylacauga and J. W. Parkman, Jr. also of Dothan, secretary.

William J. Becktel (center), a route salesman for Bordens Capitol Dairies in Indianapolis, smiles modestly as he receives the Pasteur Gold Medal for distinguished public service from Indiana's Governor Henry F. Schricker (right). R.A. McKenney, city fire chief who joined other state and city officials in honoring Becktel, looks on. The thirty-four-year-old milkman saved foud young people from a burning house two days before Christmas 1948.

Noted Speakers Give Zing To North Carolina's Annual Meeting

Merchandising and Advertising, Theme of Largest Convention in Association's History — Moley Says Get the Lead Out

By **CONSTANCE R. GARVEY**

THE THEME of "merchandising and advertising" keynoted the program of the North Carolina Dairy Products Association convention, held at the Hotel Sir Walter in Raleigh, North Carolina, January 12-13, when the largest gathering in the history of the organization attended the 16th annual convention.

A well-rounded two-day session, designed to appeal to all segments of the industry, has been described as the best yet held by the Association. Opening on the morning of the 12th, the retiring president, C. H. Williard, of High Point, recited the accomplishments of the association during the past year, among them its efforts to do a better job from producer to consumer, and to promote production and the use of local milk.

Highlighting the convention program was the address by Raymond Moley, contributing editor of "Newsweek" and author of many publications dealing authoritatively with questions of political and economic significance. Mr. Moley was introduced by North Carolina's farmer-dairyman Governor, W. Kerr Scott, at a dairy products breakfast on the morning of the 13th, which was attended by a guest list composed of "who's who" in North Carolina officialdom, as well as many visiting dignitaries from other states.

Formerly assistant secretary of state in 1933 and adviser to the late President Roosevelt in the early days of the New Deal, Mr. Moley said the greatest need facing America today is for a citizenry educated in political and economic thinking, in order that they might make their political parties "stand for something." Inactivity by the average citizen was cited as the curse of public life today, "the measure of inactivity being the measure of government." Mr. Moley attacked the Brannan Plan, stating that he doubted if many people really understood it, "including Brannan." The plan was described as a real threat to the farmer. Mr. Moley said it was "an extreme example of paternalism, where one half the country would be paying the grocery bills of the other half."

Officers for 1950 were elected on the 12th; C. B. Martin, of Durham Dairy Products, succeeding C. H. Williard, of High Point, as president; O. O. Allsbrook, Wilmington, and L. L. Cauble, Charlotte, were elected vice-presidents; succeeding J. B. Webb, Greenville, and John Burn, Shelby. L. L. Ray was re-elected executive vice-President, E. R. Coltrane as vice-president, and treasurer, and W. L. Clevenger, secretary.

Six directors were elected for two year terms: C. B. Martin, W. E. Barnes, Wilson; G. M. Holbrook, Salisbury; W. P. Landreth, Winston-Salem; Vernon D. Niven, Charlotte, and A. S. Browning, Jr., Hendersonville. Remaining on the board are J. B. Webb, O. O. Allsbrook, E. R. Coltrane, W. C. Thacker, L. L. Cauble, and John Burn.

THIS MAKES YOU PROUD

Reginald and Nathaniel Villines, young negro farmers of Hurdle Mills, North Carolina are planning a new 20 cow dairy according to E. J. Ford, farm agent for the State College Extension Service.

The boys already have a good start on their dairy enterprise, says Ford. They seeded 25 acres of pasture this fall. They also have plenty of room in a new four-thousand-dollar barn to house the 18 or 20 cows they want. At present they have four good cows, and are asking County Agent Ford to help them locate other good animals.

Nathaniel will finish his studies at A. and T. College next spring with a degree in agriculture. He is gathering all the information he can in connection with dairying and other enterprises on the farm.

During the entire convention, various aspects of the dairy industry were discussed by a series of speakers. Bryan Blalock, of Borden Company, Marshall, Texas, was enthusiastically received with his discourse on "Buttermilk, Taters and Taxes," at the first morning session. He later led a discussion on milk problems with industrymen participating.

Emphasizing the need for increasingly alert methods of handling complex marketing problems, George Hennerich, Ice Cream Merchandising Institute, Washington, urged dairymen to "Accept the Challenge" and rise above ordinary products and ordinary methods.

Dr. I. G. Greer, executive vice-president of the Business Foundation of the Greater University of North Carolina, discussed the place of the individual in a competitive system, stating that no organization, nor industry, could be greater than the individuals who composed it.

Richard Babcock, vice-president and foreign advertising manager for the "Farm Journal," Philadelphia, pointed out the importance of a consistent program of advertising, and Elmer Wheeler, of Dallas, Texas, energetic exponent of the plan to "Sell the Sizzle, not the Steak," gave many good points on the psychology of salesmanship.

Discussions were held by Dr. J. H. Hilton, dean of agriculture, North Carolina State College; Dr. E. C. Young, dean of the graduate school of Purdue University; Dr. C. W. England, Washington, D. C., who spoke on "Before We Merchandise and Advertise." Later he led a discussion on ice cream problems.

Safety Contest Winners

State Labor Commissioner, Forrest H. Shuford, and members of his staff explained the amendment to the federal wage-hour law and its effect on the dairy industry the afternoon of the 13th, and as a feature of the annual banquet, Industrial Commissioner Frank Huskins presented trophies to winners in the Safety Contest sponsored by the Association. These winners were Pet Dairy Products, Burlington; Carolina Dairy, Shelby; Southern Dairies, Asheville; and Durham Dairy Products, for having the lowest accident rating in the list of 92 plants participating in the 34-week contest.

The Tar Heel Supplymen's Association, whose annual meeting is held in conjunction with that of the Dairy Products Association, elected E. A. Watters, Durham, as president; J. L. Bogle, Raleigh, vice-president, and J. F. Neely, secretary-treasurer.

Entertainment was furnished the evening of the 12th by Robert Bruton, superintendent of the J.O.U.A.M. Orphanage, at Lexington, and his troupe of young entertainers, and a floor show by Woody Hayes and his performers.

The convention ended with the annual banquet—a complete sell-out—followed by a dance, with Woody Hayes and his orchestra furnishing the music.

Use Better Cream, U. S. Food Chief Urges Butter Makers

Speakers Flay Price Support Levels, Analyze Labor Law At Kansas Meeting—Marketing Project Described

By **W. H. MARTIN**

BUTTER MANUFACTURERS from a four-state area attending the 10th annual meeting of the Kansas Butter Institute in Wichita, January 23 and 24, were told by Samuel Alfend, Chief of the Kansas City District Food and Drug Administration that they could save themselves a lot of grief and possible financial loss if they would pay more attention to the kind of cream used for butter and eliminate any that was not clean, fresh and wholesome.

Two new tests, the water insoluble acids and butyric acid test have been developed for the detection of decomposed cream and are now being used along with the mold mycelia and extraneous matter tests to determine the wholesomeness of butter. The nature of these tests and how they are used was the subject of a panel discussion which followed Mr. Alfend's talk. It was brought out in this discussion that butter having aa high W.I.A. number (over 400 mg. per 100 gr. of butterfat) or butyric acid in detectable amounts (2 mg. per 100 gr. of butterfat) would not be suitable for interstate shipments.

Two other talks dealing with cream quality were featured on the program. H. E. Dodge, Kansas Dairy Commissioner, gave a detailed report on a statewide survey conducted by his department during the past year. The results showed that more attention should be given to the washing of cream cans, more frequent deliveries of cream by producers, and the transferring of the cream from the station to the creamery without delay. The other talk on quality was by Ray Alberts, field director for the American Butter Institute. He outlined the A. I. B. 1950 quality program which includes 4 day grading plans, limited buying days and prompt delivery of cream to the churning plant and the elimination of all methods of separation other than a properly operated centrifugal separator.

How to cash in on the American Dairy Association's Butter Merchandising program was the subject of a talk by Roy Ricksham, merchandising director of ADA.

New Officers Elected

The institute elected J. G. Vess, Jr. of the Linwood Creamery Company, Wichita, president; P. D. Turner, Nemaha Cooperative Creamery, Sabetha, vice president; and W. H. Martin, Kansas State College, Manhattan, was reelected executive secretary. W. I. Travis, Fairmont Foods Co., Concordia; A. Sorensen, Jensen Creamery, Topeka; C. E. Dunlap, Central Kansas Cooperative Creamery, Hillsboro, retiring president; and Pius Hostetler, Harper Creamery, Harper, in addition to Vess and Turner, were elected as directors. Alternate directors chosen were: Richard Wedel, Mound Ridge; Nick Fennema, Winfield; and C. N. Degginger, Hutchinson.

Attendance was unusually good with 95 present for the luncheon, 132 at the banquet and a total registration of 150 including supply men and visiting ladies. The entertainment consisted of a social hour preceding the banquet which was followed by a floor show and dance. R. D. Bounous, manager of the Wichita Chamber of Commerce, spoke at the luncheon.

WASHINGTON STATE MERGER

"Members of the Washington State Milk Dealer's Association and the Washington State Ice Cream Manufacturers Association agreed to merge their groups at the annual meeting here in Spokane, December 13, 1949. A stronger unified association plus savings in administration were reported to be the reason for the move. Present officers will continue in office until details of merger are worked out."

Tuesday's session opened with a talk on silicone coating for milk and cream cans by E. A. Hollister, Silicone Coatings, Inc., Kansas City, Mo. Cans were shown which had been coated and placed in use for several months. The inside surface of these treated cans were clean and free from corrosion. Since silicone coating is new to the dairy industry there still remains several problems to be solved, and the speaker invited the creamery men to cooperate with his company in making further tests.

Viewing the Outlook

R. H. Farr, market analyst, of Fairmont Food Co., Omaha, spoke on the 1950 support program and outlook for dairy products. He said that the established support prices for butter are at a level which would encourage sales to the government rather than private storage. The outlook is favorable for increased milk production. Factors which indicate this are increasing cow numbers, more liberal feeding, better breeding and management, more culling of poor producers and a favorable price relationship between dairying and beef cattle production. Farr thought consumption of dairy products in 1950 would be about the same as for the previous year, due to increased population offsetting any small per capita decrease. Cheese production will probably be lower due to decreased foreign demand; the volume of concentrated products produced will remain about the same, and butter production will increase somewhat over last year.

How the recent amendments to the Wage and Hour Act will affect dairy plant workers and employers was explained by John W. Johnson, Kansas City Regional Investigating Supervisor of the U. S. Department of Labor's Wage and Hour and Public Contracts Divisions. He explained that the amended Act covers all workers engaged in interstate commerce or production of goods for interstate commerce.

It also covers employees engaged in any closely related processes or occupations directly essential to the production of goods for commerce. The speaker cautioned employers to pay particular attention to the expanded coverage of the child labor provision of the Act. He defined "oppressive child labor" under the Act as the employment of children under 16, generally, and or employment under 18 in occupations declared to be hazardous.

The Final Sessions

Paul Kelly, Prof. of Dairy Marketing at Kansas State College and Dr. W. E. Black of the University of Wisconsin, outlined a Butter Marketing Project which is being undertaken to study butter sales at the creamery level. Several Kansas creamery men have indicated that they will furnish information and assist with the project.

At the final business session, resolu-

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tions were passed, (1) urging united action on the part of all Kansas dairy organizations in protest against the sale and use of products prepared to imitate dairy products, (2) approving the work of the cream quality committee and authorizing it to continue its efforts to get 4 day grading of cream into operation at the earliest possible date, (3) recommending continued support for the Kansas State College artificial insemination program and the work of the American Dairy Association, (4) commending the work of J. C. Mohler, retired Secretary of Agriculture, and pledging support to the new secretary, Roy Freeland, and (5) expressing appreciation to the speakers and organizations which participated in the program.

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TO FIGHT TRUCK LAW

An Indiana law that will mean a 50 to 300 per cent increase in license fees to private truckers will be tested in the courts. Private Truck Owners of Indiana Inc. have instituted a suit against the State to test the validity of the new law.

The suit against the State will seek to abolish the new law that is scheduled to take effect January 1, 1950. Legal opinion indicates that the law as written is very vulnerable in three or four different cases as to wording, intent of the bill, etc., the most vulnerable probably being in the title of the bill.

If the law goes into effect surveys show that many private truck owners, and dairy companies form a most important part of private truck ownership, will pay from 50 to 300 percent more license fees than have been paid under the now-existing laws.

Plaintiffs are now being named to represent varied industries that use to a great extent private trucks in performing the essential service of transportation as a part of their businesses.

Financial support for the undertaking is being sought by the Private Truck Owners of Indiana, Inc. through increased membership in that trade association which has been most effective in carrying on the interests of all owners of private trucks.

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ICE CREAM MEN ELECT SMITH

Boston, Mass. – Albert W. Smith, of 616 Alden St., Springfield, Mass., general manager of the United Dairy System here, was today chosen president of the New England Association of Ice Cream Manufacturers at the 40th annual convention of that group which was held at the Copley Plaza Hotel, Boston.

Smith was elected by some 350 delegates who attended the two-day session and succeeds Frank A. Ross, past president of the association.

Disa Show Biggest Ever
Olson Tells Canadian Supply Group

Says 3A Standards, Student Judging Contest Major Contributions to Industry — Pledges Cooperation

"I WANT to pay tribute to your young but lusty organization," Ray E. Olson, President of Dairy Industries Supply Association, told members of the Canadian Dairy Industry Suppliers Association at a meeting held January 19 at the Windsor Hotel in Montreal, Canada. "You are growing and enjoying fine leadership and, I am sure, can look forward to a bright future."

Olson's remarks in praise of the Canadian counter-part of DISA were made during a special address which the U.S. DISA President had been asked to give before the Canadians. He discussed the composition, activities, and aims of the association which he heads.

Now 374 DISA Companies

"The present members of DISA, numbering 374," he said, "produce or distribute some 90% of the equipment and supplies used in the dairy processing industries of the United States. Its membership seems to have grown somewhat in direct proportion to the rate at which competition has intensified, for its membership has practically doubled since the end of the war."

As for services and activities of DISA, Olson listed the following, among others:

"DISA cooperates with dairy processor associations . . .

"DISA provides a method of cooperation with milk sanitarians and other technical public health officials through its Technical Committee . . .

"DISA sponsors, jointly with American Dairy Science Association, the Collegiate Students' International Contest in Judging Dairy Products and maintains a related Dairy Products Industrial Research Fellowship Program . . .

"DISA maintains a special library for research and information . . .

"DISA has helped bring into being what is known as the Dairy Industries Society, International, which assists in the systematic furthering of dairy enterprise on an international scale . . .

"DISA disseminates economic information of general interest to its members . . .

"DISA maintains a Dairy Industrial Marketing Data Service for its members . . .

"DISA stages, and is solely responsible for, the Dairy Industries Exposition."

In connection with the staging of the giant of American industrial shows, Mr. Olson said that DISA had excellent cooperation from Milk Industry Foundation and International Association of Ice Cream Manufacturers, which, traditionally, hold annual conventions concurrent with the panoramic Exposition. At the last Exposition, he said, held in 1948, over 20,000 registrants, including 500 from 27 foreign countries, gathered in Atlantic City to see the latest in dairy industrial supplies and equipment.

"Because of the large DISA membership," he explained, "in all except two cities in the United States, the exhibition halls and facilities are such that if a Show were held there, each member would have to reduce the size of his booth to such a point as to make many of the booths inadequate. Six acres, or some 260,000 square feet of floor space, are required for the Show as now constituted. DISA members alone require 4,500 hotel rooms. In addition, customer associations that hold their conventions concurrently with the Exposition require an additional 2,600 hotel rooms, so that a total of more than 7,000 rooms are required.

Atlantic City or Chicago?

"There are only two cities in the U. S. A. with adequate facilities to meet these requirements. One of them is Atlantic City, N. J., where the Exposition will be held this year from October 21 to October 26. The other is Chicago where the Big Show is scheduled to be held in 1952."

In elaborating on the work of DISA's Technical Committee, Mr. Olson remarked, "This Committee enjoys a close relationship with milk sanitarians and representatives of the processors who work with them to develop standards of construction to bring about uniformity and higher quality in matters affecting sanitation. The projects on which these groups jointly work finally culminate in what is known as the 3A Standards. A very satisfying amount of progress has been made since the Technical Committee was formed some fifteen years ago in that the standards which have been perfected and generally agreed upon have assisted the manufacturer and the processor, and as a result have worked in the public interest."

SELL IT, DON'T FEED IT

Dairy Calves Raised Successfully Without Salable Whole Milk

Dairy calves can be raised successfully from birth without any salable whole milk and with a limited amount of skim milk, provided the skim milk is supplemented with cod-liver oil or some other source of vitamin A, says the U. S. Department of Agriculture.

For nearly 20 years, Henry T. Converse of the Bureau of Dairy Industry has been feeding calves experimentally at Beltsville, Md., to determine their minimum requirements for whole milk and to find out how soon they can be weaned from skim milk to hay and grain rations.

Mr. Converse concludes from his experiments that calves are often fed more milk than they actually need for proper growth and development and that it would be more profitable on many farms to sell the excess milk for human use, particularly when milk prices are high.

For many years, the traditional and orthodox recommendations have been to feed the new-born calf colostrum milk for 2 or 3 days, follow with whole milk for 2 to 4 weeks, gradually substitute skim milk for the whole milk over a period of a week or 10 days, and then continue feeding skim milk to 6 to 8 months of age. At the rates usually recommended the average calf would be fed about 550 pounds of whole milk and 2,900 pounds of skim milk.

Made Sound Gains

However, the calves in the Beltsville experiments made satisfactory gains when fed no whole milk at all and only 280 to 460 pounds of skim milk. The calves received colostrum milk the first 3 days and were then changed immediately to skim milk, which was supplemented with vitamin A in the form of either carotene in oil, 7 ounces of grated garden carrots, or 2 to 4 teaspoons of cod-liver oil daily. No dried milk, dried blood, or other animal protein supplement was fed. The Holstein calves were weaned from skim milk at 30 to 60 days of age, and the Jerseys at 45 to 60 days of age.

Leafy, fine-stemmed hay, such as second-cutting alfalfa or an early cutting of a clover and grass mixture, and a palatable, high-protein grain ration were offered to the calves by the time they were 10 to 12 days of age. Also, an abundant supply of clean water was kept before the calves at all times.

The so-called pot-bellied condition frequently complained of by other investigators was not observed in any of the Beltsville early weaned calves, even when weaned at 30 days of age.

Records of monthly weights and wither heights kept during the course of the experiments indicate that the body weight of an early weaned calf may be somewhat under normal prior to 6 months of age but the tendency to recover is strong and most early weaned calves reach normal weight before they are 12 months of age, and some before 6 months.

On the basis of these experiments, Mr. Converse says the total amount of feed needed to 1 year of age by calves that are weaned at 30 to 60 days of age will be about as follows: Holsteins will need 200 to 400 pounds of skim milk, 475 to 550 pounds of grain, and 2,800 to 3,500 pounds of hay. Jerseys will need 350 to 450 pounds of skim milk, 450 to 550 pounds of grain, and 2,000 to 2,500 pounds of hay.

Cod-liver oil should be fed (2 to 4 teaspoons daily) with the skim milk to supply vitamin A until the calf is eating a pound of fairly green hay daily.

I'LL TAKE SOME, TOO

During the extreme heat of summer, artificial shades offer good possibilities for keeping cattle more comfortable, which helps to increase gains and efficiency in use of feed. Suitable feed-lot surfaces and water as a cooling agent also may help.

These are findings of recent experiments by agricultural engineers of the Agricultural Research Administration, U. S. Department of Agriculture, and animal husbandmen of the California Agricultural Experiment Station. The tests are under way at the Meloland field station in the Imperial Valley near El Centro, Calif.

The engineers point out that cattle on full feed dissipate from 20 to 30 percent of the total energy in their feed as heat. They view the problem of comfort for all animals in warm weather largely as one of heat transfer. As cattle do not sweat, the heat they radiate plays a more important part in cooling them than in man, who gives off heat by evaporation of moisture through sweating.

As air temperatures rise to near body heat and higher, animals have more difficulty throwing off the heat generated in all living processes and may even absorb incoming heat from the sun. In order to keep more comfortable they will decrease their feed consumption, which reduces gains.

Reviews RMA Program

Dairy Advisory Committee Holds Two-Day Session with USDA Officials to Discuss Research Operations

Washington, D. C. — At a two-day meeting January 16 and 17 with U. S. Department of Agriculture officials, the Dairy Advisory Committee under the Research and Marketing Act stressed the need for more intensive research and educational work in expanding outlets for dairy products. The Committee specifically recommended research to increase the efficiency of milk production so that an abundance of dairy products

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• • •

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might be available to consumers at reasonable prices and at the same time maintain satisfactory returns to the producer.

Dr. P. V. Cardon, administrator of the Agricultural Research Administration, brought the Committee up to date with regard to activities under the RMA since the administration of the act was transferred to the ARA administrator's office last August. Assistant Secretary of Agriculture Knox T. Hutchinson spoke briefly to the group, assuring them that their help was needed "in mapping out the kind of research program that will do the most good for the most people."

Activities Outlined

Special attention was given by the Committee to several types of work conducted by different agencies of the Department, including: Insecticides and related problems affecting the dairy industry, presented by F. C. Bishopp of the Bureau of Entomology and Plant Quarantine; consumption of dairy products was discussed by Faith Clark of the Bureau of Human Nutrition and Home Economics; utilization and preferences for dried milk in bakery products and other industrial outlets, by Louis Herrmann, Bureau of Agricultural Economics; the role of cooperatives in fluid milk marketing, by Edwin H. Matzen of the Farm Credit Administration, market news reporting of prices received by creameries, by A. G. Mathis, Production and Marketing Administration; a brief review of the research program of the Bureau of Dairy Industry was presented by Bureau Chief O. E. Reed; and costs and margins work being conducted in the Department of Agriculture was discussed by D. B. DeLoach, Bureau of Agricultural Economics.

Paul Sharp, New Chairman

The Committee elected Paul F. Sharp, director of the California Experiment Station at Berkeley, as their new chairman to replace Ken E. Geyer, general manager of the Connecticut Milk Producers Association.

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ABUNDANT PRODUCTION

(Continued from Page 8)

legislation to take the effective action that could produce such a situation.

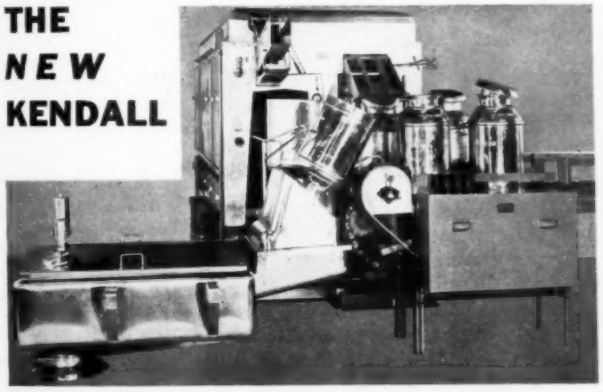
I am convinced that it is in the public interest to keep the per unit purchasing power of dairy producers at a level which will enable them to operate efficiently and which will encourage them to produce enough milk to meet the Nation's needs. Although the Agricultural Act of 1949 authorizes the Secretary to support milk at that level between 75 and 90 per cent of parity which will assure an adequate supply, I do not believe that the Act provides the method of support necessary to accomplish this task. We need to make further improvements in our price support program.

The future for the entire dairy industry can be bright. The need for milk and dairy products far exceeds present supplies. As our population grows and the life span of our people becomes longer, the demand for milk should continue to increase. In the decade 1955 to 1965, given high employment and high dairy production, it is estimated that the people of the United States might be expected to step up milk consumption an average of 135 pounds per person per year — or about 18 per cent over the current per capita level.

I believe that the Administration proposal would benefit both farmers and consumers by working toward this production and consumption potential. Moreover, it would benefit handlers by assisting the flow of a larger volume of milk and dairy products in a relatively free market, and by returning to handlers some of the operations which under present procedures must be conducted by the Commodity Credit Corporation.

Given an efficient and adequate price support program, the agricultural objective—abundant production wisely used—will come closer to realization.

THE NEW KENDALL



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Keep It Clean

By **DEE TERGENT**

DEAR FRIENDS and other high class thermodurics:

What's sauce for the goose is sauce for the gander, only sometimes the gander doesn't get the word. Came across a note in the Arcadia, Wisconsin News Leader the other day about a health ordinance in Madison. The law in that part of the nation says that all milk delivered in Madison must be pasteurized within a five mile radius of the city and must be produced within a twenty-five mile radius of the city.

Some of the boys on the outside thought that deal was a little rough and figured to get a yes or no answer from the court. The Dean Milk Company was elected mail carrier and brought suit against the city after they had been denied a license to deliver milk in Madison. Turned out that the judge found for the city and the Dean people had to peddle their milk elsewhere.

We don't wear Dean Company jerseys and we don't figure to know all the answers but if there is anything that irks us it is the practice of using health ordinances to protect a market. Madison isn't the only place it's done, of course, but that doesn't excuse it. If the market needs to be protected that's one thing. But to use the health rules as a device has got an unsavory odor that sooner or later is going to build up into a first class smell.

The sauce and gander part of the business goes like this. An item in the Milwaukee Sentinal dated a few days after the News Leader piece tells how the health folks in the city of Washington, D. C. have decided to say "Keep Out" to all milk that doesn't come from the Washington milkshed. The gates will be closed after June 30, 1950. What curdles is the fact that a large yelp of protest comes from Wisconsin. "All barriers are bad and coming from the District of Columbia, the center of Federal government, the action is ominous," was the judgment of Harvey Weavers of Madison, chief of the Dairy Division of the Wisconsin Department of Agriculture. Mr. Weavers goes on to point out how markets far from Wisconsin were tickled to death to get Wisconsin milk when they were short during the war years but now that supplies are a little more plentiful "local dairymen start putting the pressure on local health authorities to restrict the market to supplies in and near the home market."

"Dairy leaders", the ag department head says, "have been seeking to curb the practice and now Washington, D. C. is one of the first to enact the barriers going into effect in June, the flush production month."

Well not quite the first–that Madison ordinance is already in effect. However, Mr. Weaver is dead right in being "agin" barriers of this ilk. But if they're bad in Washington, they're also bad in Madison. It's not a very good sauce anyway you mix it.

SOMEWHERE THE SUN IS SHINING

Wanna get into a nice little price war? Take a trip out to Wauwatosa, Wisconsin. Two stores, Reuter's Dairy store and The Kunz Farms store, were at it hammer and tongs a month or so back. They had the price down to 43 cents a gallon at one time with regular milk going for 12 cents a quart and homogenized at 14 cents.

The war started when Reuter's cut the price to 45 cents a gallon from the previous price of 53 cents. This was 2 cents below the 47 cents that the Kunz store had been selling. Kunz went down to Reuter's 45 cents and Reuter's went down to 43 cents. Kunz went down to this price. Last information from the front was a communique from Kunz who declared that he could go "quite a ways lower" before he would lose money. Other dairies and stores in Wauwatosa were steering clear of the scrap.

Another pet peeve shared by my friends of the agar plate as well as by my own irresistible self is this matter of using health departments and milk control boards to keep out or bring in paper containers. The only oar that the health departments ought to stick into this kind of an argument is the public health paddle. If a container is sanitary and it can be approved on a sanitary basis, that's it. The container should be allowed on the market forthwith. A little better case can be made out for the milk control boards because they're constituted to insure orderly marketing. However, it is pretty shaky business it seems to us, when a milk control board says that paper MUST be sold for a cent or a two cent premium over glass. From all the figures that we've seen in or wanderings in and out of milk bottles glass appears to have an edge of anywhere from eight tenths of a cent to a cent and a half over paper cost. But if a guy thinks he has the angles figured to where he can put the perfect stuff out in paper for the same price his competitors can put it out in glass and he can meet the sanitary requirements, why should he be prevented by law from so doing?

Over in Washington, Pennsylvania, the Board of Health approved paper containers. Then the glass-workers union got out their pikes and the Board of Health said "Well, maybe we wuz wrong. Maybe these paper containers are bad medicine like you guys say they are. We won't let 'em in. You go back to blowing glass and we'll go back to blowing." Up in Providence, Rhode Island is a lad who estimates he can sell milk in paper for the same price he can sell it in glass. The young fellow's name is Vincent McGraw and he says "that an efficient paper operation can be carried on for approximately the same cost per quart as glass." But the Rhode Island Milk Control Board says, "Well, Vinnie, maybe you're right and maybe you're wrong but as long as we're running this market you've still gotta sell your milk for a couple of cents more if you put it up in paper."

That doesn't make very nice reading does it. Funny part of the deal is that folks seem to be afraid. Here it is generally conceded that glass has a cent a quart advantage in price and the additional advantage of folks being used to it and liking it. Yet instead of the glass-blowers pitching in with their boss men and trying to hold the advantage through more efficient production, better merchandising and increased advertising they elect to throw their political weight around. It does our industry a lot less than good to see a board of health or a

milk control board put their collective tail between their collective legs when the whip is cracked. If you believe in this here free enterprise system that's fine. If you don't believe in it that's all right too. But you can't ride both horses at the same time 'cause they ain't agoin' in the same direction.

* * *

The long arm of milk control has been hovering in a tentative sort of way over the industry in Akron, Ohio. Farmers producing milk for the Akron Market, a majority of them members of the Akron Milk Producers, Inc., have requested an order. Dealers are opposed to it but most of them have become resigned to the inevitable. One dealer, however, J. J. Lawson, president of the Lawson Milk Company, has picked up the gauntlet and entered into a blood, guts, and feathers battle against regulation. The press has had a merry time covering the preliminary hearings. Here is what Joseph E. Kuebler, a business and industrial writer, had to say on the subject. His piece appeared in the November 13 issue of Akron's Beacon Journal.

"Opening of the hearing here Monday on the plan to establish federal control of milk in the Akron area turns the spotlight on the unique law that makes such a thing possible.

"After all, if it were not for the law, regimentation of the Akron milk industry wouldn't be threatened. The act is not new, it's been on the books since the 30's.

"What startles the average American when he pores over this masterpiece for bureaucracy, is how far government has gone to get a stranglehold on a particular business.

"He is shocked. While he has heard a lot about this country marching down the road to statism, or creeping socialism, here he finds the real McCoy already a law of the land.

"Critics may argue that no one segment of the economy can be guaranteed a price under the competitive enterprise system. Then they run up against the milk act and find their arguments are merely academic.

33 Federal Orders

"There are 33 areas in the nation today where the government fixes the minimum price dealers must pay farmers for milk. Seven of them are in Ohio. Akron would be eighth. And Canton and Youngstown are very likely to be next.

"What brought about the law was the sharpshooting by some milk handlers a couple of decades ago. Their price wars stirred up producers. The producers appealed to a friendly congress that went to the other extreme.

"The Act authorizes the secretary of agriculture to set up what is known as a federal milk marketing order in areas where he considers it necessary. There are some preliminaries of course, such as the hearings beginning Monday at the Mayflower hotel.

"These sessions have proved to be nothing more than window dressing to date. Anyone can ask to be heard, but only the farmers can finally vote on the matter. Since they usually are the ones to ask for controls, their answer is quite obvious.

"In fact, even if the majority of the farmers opposed controls, there is nothing in the law to stop the secretary from ordering such regulations anyway.

"Conducting the hearings to determine the 'need' for federal control are representatives of the dairy division of the department of agriculture. They serve as judge and jury. And they help to present the case in favor of an order.

"These hearings in other cities have been labeled by dealers as 'nothing more than a mockery'.

"Some time after the hearings close, the farmers get a chance to vote. The milk cooperative such as the Akron Milk Producers association, is permitted to cast a single ballot for all its members supplying the area. If it has 2,000 members it can cast 2,000 votes.

"Any minority group of farmers in the co-op opposing controls has no voice.

"Independent farmers shipping milk into the particular area also may cast their ballots individually. Outcome of the vote is never made known.

"Federal control sets up sort of a Chinese wall around the specific area involved. No milk can come into this district unless dealers pay farmers at least the minimum price fixed for the area by the market administrator.

"The administrator is named by the secretary of agriculture and with the secretary's backing, he rules like a sovereign.

Cost Is Paid by Dealers

"Ironically the entire cost of carrying out the federal order designed to protect the producers is paid by the dealers who are being regulated.

"Usually the people who buy all the milk—the consuming public—have little or nothing to say. Their most effective representation has come from dealers who have banded together to fight what has been a losing battle.

"A group of 19 dealers from the Akron area, known as the Akron Milk Market Survey committee, as well as some independents, will attempt to prove that controls are not necessary.

"Failing in this, the committee will carry out a strategic retreat to previously prepared positions, as the military experts say. These are counter proposals aimed at easing the burden of what seems to be inevitable."

That's about all for this month. We'd be glad to hear from you on any of these questions. Just write to Dee Tergent, care of this publication. See you in the solution tank.

D. T.

Kurly Kate
METAL SPONGES
Designed especially for cleaning all types of dairy equipment and utensils. Will not rust or splinter, cut the hands or injure metal or plated surfaces. Kurly Kate Metal Sponges are fast working, easy to use, and easy to keep clean. Made in STAINLESS STEEL, NICKEL SILVER and BRONZE.
GUARANTEE
Send for a trial order
Satisfaction fully guaranteed
KURLY KATE CORPORATION
2215 S. MICHIGAN AVE. CHICAGO 16, ILL.
Kurly Kate
stainless metal sponge
FOR EASIER INDUSTRIAL CLEANING
SOFT ON HANDS
SANITARY
ORDER FROM YOUR JOBBER OR WRITE DIRECT

USING OUR SEPARATOR

Trouble Lite Reel

THE Creamery Packaging Manufacturing Company has been appointed the national distributor in the dairy field of the Cordomatic Automatic Trouble-Lite Reel.

"Stubby" handle makes the light easier to manipulate in cramped positions, and is available in either the keyless or push through switch type. The "gravity action" recoil mechanism operates like a window shade, and is guaranteed not to

break down even with extremely rough handling. It is equipped with Underwriters Laboratories No. 18-2 S.V., Neoprene jacketed, kink-proof, oil and water resistant cord, which flows in or out easily with finger-tip control, and locks at any desired length within the 20 feet, thereby permitting extreme flexibility of use.

Available in either ceiling mounting (360 degrees rotation) or wall mounting (180 degrees rotation) the CORDOMATIC TROUBLE LITE REEL is unconditionally guaranteed against defective workmanship and material for one year.

As a special service feature in the event that the cord becomes damaged or impaired during the life of the reel, the CORDOMATIC DIVISION, for a very nominal charge will install a new cord, handle and guard. A guarantee to this effect is enclosed with each unit.

●

Care of Floors

EVERY TYPE of floor and floor surface is thoroughly discussed in West Disinfecting Company's new brochure, "The Proper Care of Floors".

This 32-Page brochure is illustrated, and is prepared in two parts:

Part I covers the triple process of Floor Preservation – (a) Cleaning (b) Sealing (c) Maintaining.

Part II discussess all types of floor surfaces, new and old, and the proper methods of maintenance. Helpful hints also appear in this section. A chart for floor preservation appears as a two-page spread, listing the many types of surfaces, the proper type of cleanser, sealer and maintainer to be used. Covering capacities of West's Floor Maintenance products are in chart form, for easy reference and comparison. Write to West Disinfecting Company, 42-16 West Street, Long Island City 1, N. Y.

●

Storage Batteries Tool Kit

THE GS No. 3F battery service kit consists of a steel tray with a handle and compartments for holding battery servicing tools and water. The water jar is constructed of hard rubber and will outlast any glass container many times. Will not tip over.

The water jar has two holes, one to hold a Hydrometer and the other for a

battery filler. A space is provided for a cell tester to prevent breakage.

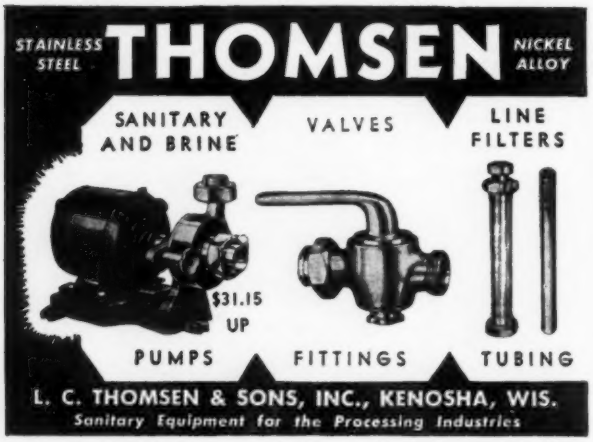
The other compartments are spaced to hold battery terminal spreader, battery plier, battery carrier, battery brush and battery terminal puller.

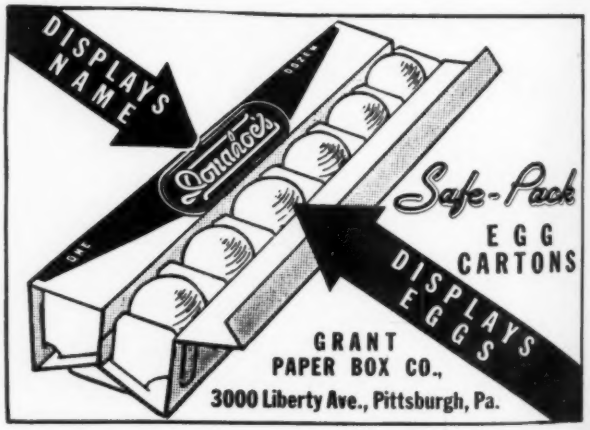
●

Booklet On Pensions

"OUTLINE for Pension Planning" – a group of twelve articles that offer a practical guide to the problems involved in establishing a company pension plan – is now available in a compact, 16-page booklet. Priced at 50c per copy, the pension guide may be had by writing to The Journal of Commerce, 63 Park Row, New York 15, N. Y. These articles recently appeared in series form in The Journal of Commerce.

The articles describe fully the steps to be taken in preliminary procedure, types





of higher Social Security demands, various demands to make in bargaining, and the effects of pension-fund accumulations on the investment market.

The Journal of Commerce will furnish bulk order rates for these reprints on request.

●

Circulator Pump

DESIGNED PRIMARILY for modern forced circulation and radiant heating systems, this circulator pump has many other applications, according to information received from The Piqua Machine and Manufacturing Company, Piqua, Ohio, makers of "En-Po" (Engineered Power) Products.

A non-clogging feature makes it useful for re-circulation and transfer applications in dairies, food processing and chemical plants, breweries, mines, etc. Also used as a coolant pump for evaporative coolers, machine tools and production processes.

For operating totally submerged or in damp and wet locations, the circulator can be furnished with an Enpo Submer-

sible Motor. Pump has a capacity of more than 20 g.p.m. at 10 ft. head; high efficiency and power factor; armored motor; accessibility without removing plumbing. Available in all standard voltages and frequencies.

Special requirements calling for a modification in materials, ratings, dimensions and design can also be met, the maker says. Free literature available on request.

Dairy Plant Sanitation

THE Du Bois Company announces the release of a bulletin covering the subject of Dairy Plant Sanitation.

A tremendous amount of labor and expense is involved in seeing that dairy products reach the market in a sanitary condition. This bulletin deals with the cleaning problems involved in handling milk from the time it is produced on the farm, until it reaches the consumer in the form of whole milk, cream, ice cream, cheese, or butter. It outlines in detail the most efficient and economical method of maintaining clean and sanitary equipment on the farm and in the plant.

This bulletin on Dairy Sanitation will serve as a handy, compact, reference to refer to when you encounter difficulty in cleaning your equipment, your plant, or your delivery trucks. A copy may be secured by contacting the Du Bois Company, Cincinnati 3, Ohio.

●

Tank Heating and Cooling

TANK HEATING and Cooling is described and illustrated in a new six-page bulletin just released by the Kold-Hold Manufacturing Company of Lansing, Michigan. A direct comparison is made between the Platecoil and pipe coil methods of heat exchange. Advantages of Platecoil are described in relation to savings in time, money and manpower for the user. Copies of the Bulletin may be secured by writing the Kold-Hold Manufacturing Company, Lansing, Michigan.

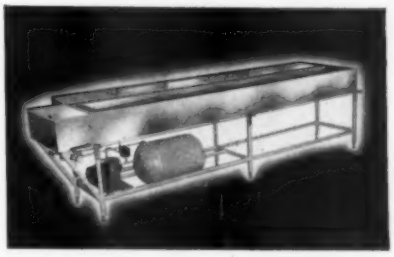
●

Pipe Washer

MOVING THE BRUSH instead of the pipe is an outstanding feature of the new Dellway Sanitary Pipe Washer. An economy of time, space, and effort is claimed.

The patented machine uses compressed air to drive the brush through the pipe at an average speed of 8 feet per second. While completely submerged in water, the pipe acts as an air cylinder. A piston operating in an opposed air cylinder returns the brush to its starting position. The action may be repeated as many times as desired. The machine will handle any 1½" to 3" pipe up to 10' long.

Three compartments all in the same unit provide for soaking, washing, and



rinsing. The machine is constructed with a stainless steel or galvanized metal tank, and is available without the air compressor if an air supply is available.

Pictures and details are available in new folder from the Dellway Manufacturing Company, 211 West Lake St., Lake Mills, Wis.

●

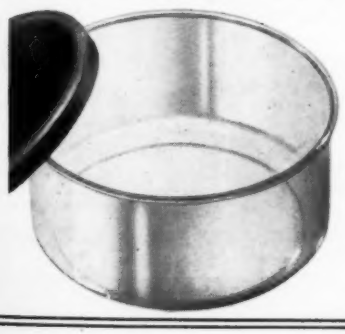
Boiler Feed Pump

"THE Fred H. Schaub Engineering Company announces the development of a new line of condensate and boiler feed pumps known as the Master-Bilt line.

The new pumps include both Fleximatic mechanical seals which eliminates convention pump packing, and permanently lubricated ball bearings.

Magnified view of photo illustrates external appearance of the Fleximatic mechanical seal which never leaks and cannot score the pump shaft. Special design feature of Fleximatic seal is automatic adjustment of seal face tension

BOOST COTTAGE CHEESE SALES



Exciting, new 12 oz. PLASTIC DEEP DISH with FLEXible Lid stimulates sales of cottage cheese and all products.

Striking promotional material and sales plan available for this and other type cottage cheese sales campaigns.

Write, wire or phone for details!

G. P. GUNDLACH CO.

"Servants to the Dairy Industry"

1201-07 WEST 8TH ST. Box "A" CINCINNATI 3, OHIO

proportional to internal pump pressure, plus ability to take up for nominal axial misalignment. A unique characteristic of this seal is its ability to run dry if necessary for several hours without burning up the seal faces.

Normal life expectancy of mechanical seal is two years. Seal replacement in field is no more difficult than replacement of any other internal pump part.

Write for bulletin No. 91 giving full details."

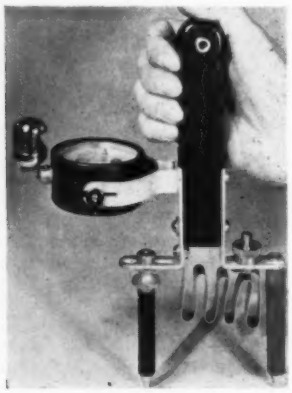
●

Locate Battery Trouble

THE GS HY-RATE battery cell tester No. 17 shows the condition of a 6 volt battery. The double scale meter is calibrated 3-0-3 accurate and quickly detect weakness in a battery cell.

The GS No. 17 is light in weight – convenient – with meter between prods. A handle fits the hand and balances perfectly.

Prods are adjustable and will fit the terminals on any battery. One prod can



be moved in a specially designed slotted holder to obtain proper spacing to test batteries with cells mounted lengthwise.

Colored dial has a long scale for easy reading. "Dead, Discharged and Charged" scale markings indicate battery condition. A light illuminates the dial in dark places and goes out when cell is dead, dims when cell is low.

●

New Caustic Compound

A NEW APPROACH to the problem of overcoming scale formation and hard water difficulties in conjunction with the use of caustic soda has been developed by Bonewitz Chemicals, Inc., Burlington, Iowa, for which patent applications are on file. The treatment of caustic compounds with any suitable or compatible material has long been a problem in the Chemical Industry and in the field of sanitation chemicals.

SPARK-O-SAN is the trade name for the new caustic compound developed by the Bonewitz Company and contains a very high percentage of caustic soda, in fact, much higher than is normally possible in such products; is composed primarily of caustic soda 92-93% coated or treated with an organic supplement which chelates all hard water salts including iron, thereby sequestering these undesirable film formers which are normally thrown out of solution in hard water. The cleaning properties and stability of these caustic solutions are improved very greatly.

Liquid Caustic Soda 50% Commercial Grade for the first time may now be conditioned for hard water usage in the manufacturing plants, thus eliminating the usual supplemental treatment necessarily performed heretofore by the user.

An interesting feature in this new development is that the treatment remains stable and unchanged regardless of the hardness of the water, the temperature at which the operation is performed or the length of time the solutions are maintained at elevated temperatures.

This new product has been very successfully used in a wide variety of cleaning operations, such as the washing of milk and beverage bottles, vacuum pan cleaning and other similar operations over a long period of time.

The organic materials used in this treatment are food grade, non-toxic compounds suitable for use in any type food plant cleaning operations.

●

Cottage Cheese Package

THREE SPECIAL shape Libbey tumblers in the new and popular Emerald Green shade are now available to dairies for packaging cottage cheese and other dairy products, according to an announcement by R. B. Wilhelm, Manager, Dairy Container Division, Owens-

Illinois Glass Company. Two of the new tumblers have decorative spiral designs. The other is a heavy base type, similar to the more expensive dining room tumblers. All Emerald Green tumblers have the characteristic Libbey Safedge rims which are guaranteed by the manufacturer against chipping. Shown in the picture above, left to right, 11-oz. Spiral Optic with 68 mm. finish, 10-oz. Heavy Base with 76 mm. finish and 11-oz. Barrel Spiral Optic with 68 mm. finish.

●

Automatic Milk Dispensers

MACHINES which automatically dispense milk will be among the array of vending equipment and products on display at Atlantic City,

'FRIGIDRY' DAIRY CULTURES

Reg. U. S. Pat. Off.

GBI

Reg. U. S. Pat. Off.

Save Time—Save Money—Avoid Trouble. Use rapid-growing 'Frigidry' cultures to produce mother culture in one generation and take guess work out of making good buttermilk, butter and cheese.

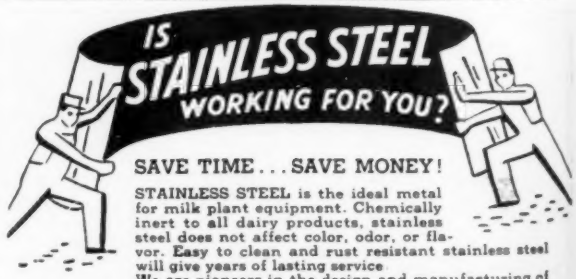
LYOPHILIZED* for UNIFORMITY • VIABILITY • STABILITY

*New, high-vacuum, sub-zero drying process.

FREE *Write for Booklet No. 206 on production of Cultured Dairy Products.*

GENERAL BIOCHEMICALS, INC.

25 LABORATORY PARK • CHAGRIN FALLS, OHIO



SAVE TIME . . . SAVE MONEY!

STAINLESS STEEL is the ideal metal for milk plant equipment. Chemically inert to all dairy products, stainless steel does not affect color, odor, or flavor. Easy to clean and rust resistant stainless steel will give years of lasting service.

We are pioneers in the design and manufacturing of stainless steel milk plant equipment. Our engineering staff is at your service—write us your requirements.

STAINLESS & STEEL PRODUCTS CO.

1000 BERRY AVENUE ST. PAUL 4 MINNESOTA

November 27-30, at the largest automatic merchandising show ever to be held. The occasion will be the 1949 Convention and Exhibit of the National Automatic Merchandising Association, which will play host to some 5,000 vending machine operators, manufacturers and suppliers.

Milk vending machines to be displayed are the Dari-Mart, manufactured by Cedar Hill Farms, Inc., Cincinnati, Ohio. 80 Pure-Pak units (pints, half pints and one-third quarts) can be vended from eight service doors in each machine, with pre-cooling space for over 200 more. The machines are of all-enclosed construction, which prevents handling of cartons and wins approval of health authorities.

●

Stainless Steel Bulletin

TAYLOR FORGE BULLETIN 485, CORROSION SERVICE PIPING, is a comprehensive treatment on stainless steel and nickel alloy anti-corrosion and anti-contamination piping. Economics, standards, advantages of welding, extensive technical data, design tips, and complete dimensional information on stainless fittings and flanges are included in the 32 page, profusely illustrated bulletin.

The Bulletin is particularly interesting and valuable at this time as the American Standard for Stainless Steel Pipe, ASA B36.19-49, has just been adopted by the American Standards Association. Bulletin 485 was prepared with B36.19 as its basis and it contains a comprehensive discussion and explanation of the importance of this standard.

●

Embossed Service

THE MUCKLE Manufacturing Company of Owatonna, Minnesota, leading manufacturer of Dairy Equipment and Service Cabinets, has recently announced the addition of an embossed cabinet to their line of all purpose service cabinets.

This permanent embossing of the sponsoring firm name guarantees lasting identification and helps prevent use by competing firms.

This new embossed service cabinet has the same features and specifications as the other Muckle models. Aluminum and steel construction used throughout, removable steel tray catches moisture from milk bottles, ½" insulation, rust proof covers prevent freezing, ticket clip inside cover.

Muckle Manufacturing Company pays the postage on any requested sample, charged at list price. When requesting sample or other information, please mention name of this magazine.

●

Air Purger for Small Refrigeration Plant

A NEW AIR PURGER, called the Midget, for the small refrigeration plant of 50 tons refrigeration, is announced by Rex Engineering & Sales Co.

Through the installation of an Air Purger excess head pressure is reduced, non-condensable gases are purged and condensed gases automatically returned to the system. This results in more efficient operation of compressors, increased tonnage and a considerable reduction in power costs.

The Midget is so constructed that it insures continuous uninterrupted operation. It has a large storage capacity in which foul gases are collected.

The Midget may be installed close to the receiver or at any convenient place in the plant.

Full details and price may be secured by addressing the manufacturer, Box 5141, Oklahoma City, Okla.

●

Hi-Pressure Cleaner

A NEW HI-PRESSURE Jet Cleaner for daily clean-up of food plants and processing equipment has been announced by the Sellers Injector Corporation, Philadelphia, Pa. The new model has a complete stainless steel body and simplified lines to conform with the sanitary requirements of canners, dairies and meat packing plants.

The Sellers Hi-Pressure Jet Cleaner delivers a high volume, high pressure jet of hot water, mixed with a detergent or solvent if desired, which effectively cleans all types of surfaces. The Hi-Pressure Jet Cleaner has no moving parts and requires only connection to steam and cold water lines. It will deliver an effective hot water jet adjustable from 115 to 205° F. at 50 to 310 psi. The Jet Cleaner is available in portable or stationary models and is furnished complete with 50 ft. of high pressure hose, cleaning lance and dispersion type nozzle. Literature is available from the Sellers Injector Corp., 1619 Hamilton Street, Philadelphia 30, Pa.

●

New Floor Mat

A RADICALLY new type of floor mat that combines all of the advantages afforded by all types of matting has just been announced by D. W. Moor, Jr., president, American Mat Corporation, 1798 Adams Street, Toledo 2, Ohio.

To be marketed under the trade name of Evertred, this new mat, constructed of vinyl plastic links woven on a rust-resisting spring steel wire network has unlimited applications.

Evertred affords safety underfoot through the special design of the links. One side of each link is slightly corrugated to effect a non-slip surface even when the mat is used in shower rooms and pools, An additional safety factor is provided on the non-trip beveled nosing.

The other side of the links is ridged to afford a mat surface that effects unusually good dirt removal. The mat will not absorb soil, discolor with use or age, nor lose any of its color brilliancy. It is unquestionably the easiest to keep clean of any known type of mat.

IDEAL FOR THE DAIRY INDUSTRY

Emery Aggregate FLOORS

LONG-LASTING
NON-SLIPPING
ECONOMICAL

THE CREAMERY PACKAGE MFG. COMPANY
General Offices: 1243 W. Washington Blvd., Chicago 7, Ill.
Sales Branches in 21 Principal Cities

Here's the NEW and BETTER WAY!

To Handle Your
COMPOSITE MILK SAMPLES
With the
Compo-Cooler
Refrigerated and Insulated

Successful Milk Plant Managers in every section of the country have bought and are using Compo-Cooler Sample Bottle Cabinets.

One of the many reasons is that Compo-Cooler handles your composite milk samples rapidly and at a big saving of time and labor.

Compo-Cooler gives you complete electric refrigeration. All cabinets are lifetime stainless steel throughout with a capacity, style and size to fit your particular plants need.

FREE Write today for illustrated booklet and complete details.

COMPO-COOLER COMPANY
GLENS FALLS, 1 NEW YORK

WANTS and FOR SALES

Classified Advertising Rates

(Remittance MUST Accompany Order)

Position Wanted

50 word maximum, 50c — 2c for each additional word.

All Other Advertisements

Lightface type: 5c per word ($1.00 minimum).
Boldface type: 10c per word ($2.00 minimum)
(The name and address should be included in counting the words)

Keyed Address

25c additional in the United States.
50c additional in Foreign Countries.

When replying to any of the following keyed advertisements please address replies to:

BOX NO..... AMERICAN MILK REVIEW

92 WARREN STREET NEW YORK 7, N. Y.

(The deadline for Classified Advertising is the 10th of the month preceding publication.)

No classified advertising will be accepted to run with borders or special spacing. All such advertisements are considered "Display" advertising and will be billed at regular display advertising rates. (Rates and mechanical requirements on request.)

EQUIPMENT FOR SALE

FOR SALE — 1-650 gallon Cherry Burrell Viscolizer, stainless steel head, 25 HP, 3 phase, 60 cycle, 220/440 volt motor, guaranteed condition, 8 years old—$1500.00. 1 York Plate Cooler, consisting of HL frame, presently set up to handle 7000 lbs. of milk per hour, cooling from 143 degrees to 40 degrees using city water and 34 degrees sweet water, $1475.00. R. G. Wright Co., Inc., 23 Roetzer Street, Buffalo 11, N.Y. 2-M

FOR SALE — Can ball-bearing roller conveyor 10′ lengths, 4″ centers, $3.00 per foot. Gordon Equipment Co., 6530 W. Jefferson, Detroit 17, Michigan. 2-M

FOR SALE — One Type M5-72 Yundt air brush milk bottle washer, 12 bottles wide, 5 soaker compartments with automatic temperature control; Reeves Vari-Speed drive adjusts speed from 60 to 120 bottles per minute; Faval centralized lubrication system; good condition. Will be sold very cheap on account of changing to 100% fibre operation. Qualitee Dairy Products Company, 354 11th Ave., San Diego 1, California. 2-M

FOR SALE — 9x9, 6x6, 4x4; Frick 7x7, 5x5, 4x4; Vilter 6½x6½, at reduced prices; shell and tube condensers; ammonia receivers; Motors 3-60-220, 5 HP and up $3.00 per HP; s.s. covers for 6 ft. cooler, $75.00 (new); Sturdy-Built 4-wide washer, half gallons and smaller, $400.00; Gallon wire jug cases $1.00 (new); Fort Wayne 4 filler and capper s.s. Bowl $25.00; Butter cartons stock prints, $2.50 M. Cottage hoops, s.s. $.50 each; C. P. Hydraulic printer and 10-90 lb. boxes, $50.00; New Mojonnier cabinet cooler 4 wings s.s., $2500.00, 12,000 lbs. capacity; D. E. cooler section 12 ft-8 tubes nickel steel, $100.00; Sanitary pumps and motors, $35.00 each; Other dairy equipment. Write us what you need. We buy, sell and trade. Gordon Equipment Co., 6530 W. Jefferson, Detroit 17, Michigan. 2-M

Late model 1½ ton International truck with 640 gallon refrigerated body. Unit is equipped with Dole plates. Freon complete with compressor. Also late model Brockway with 5-door 550 gallon Dry Ice body. Both trucks in good condition. Real buys. Empire Ice Cream Co., 65 Taaffe Place, Brooklyn, N. Y. Phone Ulster 5-2530. 2-M

EQUIPMENT FOR SALE

FOR SALE — 100 to 300 gallon Stainless Steel Pasteurizers; 1000 gallon Cherry-Burrell Horizontal Coil Vats with stainless steel linings and tinned copper coils; G-70, G-160, GV-20 Cherry-Burrell Fillers; 4, 6 and 8 Wide Bottle Washers; 125 to 1000 gallon Homogenizers or Viscolizers; about 135 ft. Power Can Conveyor, also 20 ft. Power Case Conveyor with Booster and Power Units; 2000 and 3000 gallon Pfaudler Glass Lined Storage Tanks for by-products only; 3 ft. to 6 ft. Stainless Steel, also Copper Vacuum Pans. Write or wire your requirements. Lester Kehoe Machinery Corporation, 1 East 42nd St., New York 17, N. Y. Telephone MUrray Hill 2-4616. 2-M

FOR SALE — (1) One Sturdy-Built washer, good shape automatic unload; (1) One Milwaukee filler type L s.s. Bowl, 16 valve, rebuilt June of 1948. (1) One Rice & Adams can washer, 8 cans per minute, (good shape). (1) One scale tank 50 gallon capacity, s.s.; (1) One cooler, two (2) section, 7 foot 1½x2 tube, with S.S. covers. Complete with stands and hangers. (1) B.H. 50 Cellophane machine, new July of 1948, 48 bottles per minute. This equipment is all in good shape and can be seen at the Glen Park Dairy, 616 West 11th Ave., Gary, Indiana. 2-M

FOR SALE—Girton 3 compartment bottle washer. Washes quarts, pints, half-pints and half-gallons, $500. Write U.V.X. Dairy, Cottonwood, Arizona. 2-M

FOR SALE—Mechanical Cow units, consisting of homogenizer, cooler, 6 quart Taylor Freezer ice cream head, unit. This unit will make milk, cream, or ice cream mix. Formerly sold for $1750.00, now only $1075.00. Brand new, crated F.O.B., N. Y. Interstate Appliance Co., Inc., 600 Broadway, N. Y. 12, N. Y. 2-M-1

FOR SALE—Sweden Ice Cream Freezers, complete with condensing units, 4-20 quart capacity, brand new in crates, very low in prices. Interstate Appliance Co., Inc., 600 Broadway, N. Y. 12, N. Y. 2-M-1

EQUIPMENT FOR SALE

FOR SALE—4-wide Heil Bottle Washer. 2 100 gallons Pfaudler Pasteurizers complete with recorders in excellent condition. Write Post Office Box 25, Long Island City 1, N. Y. 2-M

FOR SALE—Used York Heat Exchanger Press with 45 stainless steel plates, can be used as 8m lbs. per hour S.T.H.T. Pasteurization System, also Creamery Package Press with 31 stainless steel plates, can be used as heater or cooler, also 10-56mm. stainless steel cappers for Cemac Filler. Excellent condition — everything reasonably priced. Write Karsten Dairies, Inc., 2340 Hermany Ave., New York 61, N. Y. 2-M

FOR SALE — Bobtail soda fountains 5′ and 6′ complete with pumps and jars, brand new in crates, $350.00 and $395.00, F.O.B. New York Interstate Appliance Co., Inc., 600 Broadway, N. Y. 12, N. Y. 1-M-1

We can furnish new and used tight barrels for sweetened condensed milk, condensed buttermilk and for the cooling of milk. Also slack barrels milk powder and other dairy and poultry products. Also egg cases. Write Buckeye Cooperage Co., 3802 Orange Ave., Cleveland 15, Ohio. 2-M-t.f.

REBUILT — Pasteurizers, Milk Coolers, Bottle Fillers, Ice Machines, Plate Coolers and Heaters, Homogenizers and Bottle Washers. Send us your requirements. Ohio Creamery Supply Company, 701 Woodland Ave., Cleveland 15, Ohio. 2-M-t.f.

FOR SALE — One Meyer 8 wide Bottle Washer, completely rebuilt by Meyer Engineer. Round or square bottles. Write C. T. Kirkman, 2648 College St., Jacksonville 4, Fla. 2-M

FOR SALE — Mojonnier stainless steel, 12 spout Vacuum Filler and Capper, reconditioned and guaranteed; Model 90RH for one-half pints, pints, quarts and one-half gallons. Will handle up to 90 bottles per minute. Complete with vacuum pump; inlet and outlet conveyor with stands and stainless steel covers; and stainless steel accumulating table with separate drive. SACRIFICED at $1,000.00, F.O.B. Chicago. Also Sanitary Fittings and Sanitary Pumps. The Filter Paper Company, 2460 S. Michigan Ave., Chicago 16, Illinois. 2-M

SPECIAL OFFERINGS — Four Jensen Stainless Steel Cabinet Coolers each containing 8 wings, 56 tubes high; Two Mojonnier Stainless Steel Cabinet Coolers, 6 wings each 72 tubes high; Four 14 ft. Specialty Brass Internal Tubular Cooler (or Heater) Sections with ten 2″ s.s. tubes, never used; 12 ft. Creamery Package I.T. Cooler (or Heater) with 28-2″ stainless steel tubes; York Plate Cooler, capacity 7000 lbs. per hour. Write or wire your requirements. Lester Kehoe Machinery Corporation, 1 East 42nd St., New York 17, N. Y. Telephone MUrray Hill 2-4616. 2-M

EQUIPMENT WANTED

WANTED — Insulated Stainless Steel Trailer Tank, 24,000 pound capacity. Must be in good condition. Latest Fittings. Oneida Milk & Ice Cream Co., Rhindler, Wisconsin. Phone: 190. 2-M

WANTED: Used Milk Plant equipment. Give complete information with prices. Write Box 273, care this publication. 2-M

EQUIPMENT WANTED

WANTED — ½ pint round bottles, 48 or 56 MM; misprint or out of date plug type caps, 48 MM; all size S.S. holding tanks. Gordon Equipment Co., 6530 W. Jefferson, Detroit 17, Michigan. 2-M

WANTED TO BUY

WANTED — Good used churn, 500 lbs. butter capacity. Sauquoit Valley Dairy Company, Inc., 491 French Road, Utica 4,

MISCELLANEOUS

FOR SALE — Chocolate Powder and Chocolate Syrup for making Non-Settling Chocolate Milk. Your trial order will receive our prompt attention. Bradway Chocolate Company, New Castle, Indiana. 2-M-t-f.

FOR SALE—Orange-Ade Base made from fresh oranges. Nothing to add but water. $1.35 per No. 10 tin. Bradway Chocolate Company, New Castle, Indiana. 2-M-t.-f.

FOR SALE — Truck lettering and trademark decals, made for your truck and store advertising. Easy to apply; uniform, distinctive, economical for small or large needs. Write for catalog. Mathews Co., 827 So. Harvey, Oak Park, Illinois. 2-M-1

FOR SALE — 5000 lb. York Short Time Pasteurizer complete — including section for cooling raw milk. Box No. 272. 2-M

PLANT FOR SALE

FOR SALE — Milk out-put approved for Newark and State of New Jersey. Butterfat 4% & over. 250 to 400 cans daily. Contract for full year. Write Box 259, care this publication. 2-M

BUSINESS OPPORTUNITY

Will lease or purchase modern equipped creamery in New York State. Complete detailed description desired. Write Box 253, care this publication.2M

Desire proposition to have butter custom churned for us in upper New York State. Give all particulars, capacity, equipment and refrigeration. Write Box 252, care this publication. 2-M

HELP WANTED

WANTED — Salesman familiar with both dairies and jobbers to cover specific territory as direct factory representative. Replies will be held in confidence and interviews arranged. Write Box 271, care this publication. 2-M

POSITION WANTED

MILK ACCOUNTANT - CONTROLLER —12½ years accounting experience in dairy industry; butterfat and financial accounting; thorough knowledge of milk marketing, government regulations. Salary $200 per week. Reply Box 262, care this publication. 2-M-1

WANTED — First class Italian Latticini man. Manufacturer of Ricotta and curd for Mozzarella and Scormazzo. Desires position in New York, New Jersey, Penna. or Conn. Am at present employed. References. Write Box 270, care this publication. 2-M

WANTED — As assistant superintendent in milk or ice cream plant. B. S. degree from Penn. State in dairy manufacturing. Over two years practical experience in plants handling fluid milk, cheese and ice cream. At present in charge of laboratory. Write Box 269, care this publication. 2-M

POSITION WANTED

EXPERIENCED cheese and butter maker wants change. Reliable, honest, trustworthy, clean worker, expert grader, makes a good product of cheddar and processing, also cottage cheese, pasteurization and testing both milk and cheese. More than 10 years in present position. Eastern States preferred. Write Box 274, care this publication. 2-M-1

CHIEF OR SUPERVISORY ENGINEER — Dairy, ice cream, cold storage, power, steam, electrical refrigerating. Licensed professional engineer; graduate engineer; go most anywhere. Permanent only. John Elmore, 5723 S. Normal Blvd., Chicago 21, Illinois. 2-M

POSITION WANTED — By young man of sound theoretical and practical experience in Live Poultry production and marketing. Is an alumnus of agricultural school and is eligible for on-the-job training under the G. I. Bill of Rights. Desires change to egg or poultry trade. Write Box 272, care of this publication. 2-M-1

REPAIR SERVICE

THERMOMETERS—We repair Mercurial Indicating Thermometers, dial thermometers and recording thermometers of all makes. Instruments are reconditioned like new. Satisfaction guaranteed. For economical savings ship your thermometers to Nurnberg Thermometer Co., 124 Livingston St., Brooklyn, New York. 2-M-t.f.

EQUIPMENT OFFICIAL DIES

W. R. "Bill" McEwen, former advertising manager of the Cherry-Burrell Corporation, died on January 15 at his home in Fort Lauderdale, Florida.

Mr. McEwen retired from active service December 31, 1943 because of ill health. He had been associated with the company and one of its predecessors, the J. G. Cherry Company since 1910. When the Cherry-Burrell Corporation was formed in 1928 Mr. McEwen took up the duties of advertising manager.

Writing of Mr. McEwen, W. S. Stimson, present advertising manager of the Cherry-Burrell Corporation, writes:

"Bill McEwen was an outstanding man in the advertising profession. He further had the distinction of establishing in 1917 our customer magazine, the Cherry-Burrell CIRCLE, which was first published as the Cherry CIRCLE until the formation of the Corporation. The principles and ideals which he established for this publication have made it one of the outstanding house magazines published, and one of the most valued magazines in the dairy industry. It is one of the oldest industrial house publications, currently in its 35th year of continuous publication.

"Because of his third of a century of service with the company, Bill McEwen had a host of friends, both within the company and throughout the dairy industry.

●

BIG WHEELS AT PULLMAN

A great array of top-flight speakers of national reputation, panel discussions, demonstrations, national scoring and judging contests for the various dairy products, with many fine prizes donated by the dairy machinery and supply houses from all parts of the country, trade association meetings, entertainment, a grand conclave of the Order of the Yellow Dog, banquets, and exhibits will combine to make the mid-century State College of Washington Institute of Dairying an educational event which no dairyman in any branch of the industry can agord to miss. The Institute will be held March 6-11, 1950, at Pullman, Washington.

Two ring attractions will feature the program during the first half of the week. On Monday there will be sessions for Concentrated milk manufacturers and special sessions for fieldmen, dairy inspectors, and producers. Tuesday will feature sessions for ice cream manufacturers and for milk sanitarians and fieldmen. Wednesday will be Milk Dealers' Day with special sessions for general sanitarians. Thursday is Butter Manufacturers' Day and Friday Cheesemakers' Day.

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FIREWORKS IN CHICAGO

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charges Bowman with violating the Robinson-Patman Act by entering into secret rebate agreements with A. & P. in 1942 through 1948, and the third charges Borden with making such rebate agreements with A. & P. and the Jewel Tea Co. The latter two counts are the matters set for trial beginning on May 31.

The plot is thickened somewhat by pendency in the same U. S. District Court of a big civil suit filed by the Dean Milk Company of Chicago against all the defendant companies in the anti-trust suit except Beloit, plus the National Tea Company and one individual, John F. Cuneo, not a party to that suit, claiming $15,000,000 damages.

Setting up complaints paralleling much of the Government's allegation, Dean claims to have lost five million dollars in profits because of the alleged "conspiracy." However, Dean has added to the controversy by naming National Tea and its board chairman, John F. Cuneo, as defendants.

Alleges Secret Rebates

Dean contends that National Tea was a customer from 1942 through 1947, and in 1947 bought five and a half million dollars worth of milk in paper containers. The suit then alleges that the American Processing and Sales Company paid $400,000 in secret rebates, discounts, and allowances to National, and as a result acquired all the business in 1948. As to the alleged A. & P. and Jewel Tea rebates to Borden and Bowman, the Dean complaint follows literally the sums in the Government's criminal complaints against the same companies.

Cuneo is identified in the Dean complaint as a controlling stockholder in the American Processing and Sales company, formerly the Hawthorne-Mellody Farms Dairy, Inc., and as chairman of the board of the National Tea Company.

Commenting on his company's suit, Park Livingston, vice-president of Dean's, maintains that "the primary purpose of the suit is to break open the Chicago retail market to honest competition, and give the consumer the benefit of the lower prices that can be achieved by efficient operation."

Vehemently denying all the charges, Oliver O. Smaha of Borden declares that there was no conspiracy whatever to fix prices, allocate customers or monopolize the milk or cream market.

The Dean case is filed under the Federal statute permitting a party injured by monopolistic activities to sue for triple damages in a civil court, and its outcome will turn largely on the outcome of the anti-trust suits, thus adding fuel to a flame which already is burning brightly and with constantly increasing heat as the trial dates in the warm late spring months approach.

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